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ABSTRACT

Abstracts and four papers from the 1983 Association for Institutional Research (AIR) Forum on integrating human resources and technology are presented. AIR membership and organizational information are also provided. Paper titles and authors are as follows: "It Ain't All Bad" (Dean F. Berkley); "Technological Innovation and Strategies for Investing in Human Capital" (H. Ian Macdonald); "Futures: The Effects of New Microelectronics" (Alexander Shure); and "The State of the Association and the Institutional Research Profession" (William F. Lasher). Topics include the impact of the computer on education, management information systems and accountability systems, the efforts of the IDEA Corporation to promote technological innovation and the growth of the Ontario, Canada, economy. Abstracts and summaries are presented of contributed papers, seminars, symposia, panels, workshops, table topics, and special interest/regional group meetings. Lists are provided of program participants and contributors, along with forum registrants. The AIR Directory includes the constitution and bylaws, guidelines for awarding membership, minutes of the 1983 annual business meeting, the president's annual report, the financial report, and reports of the other AIR officers. In addition, AIR committees and affiliated regional/special interest groups are listed, along with 1983-1984 members. (SW)

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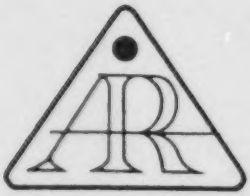

AIR 1983–1984

PROCEEDINGS

Forum 1983

Integrating Human Resources and Technology

Toronto
May 23–26

PROCEEDINGS PROCEEDINGS

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC).

DIRECTORY

1983–84

The Association for Institutional Research

SUPPLEMENT

DIRECTORY DIRECTORY DIRECTORY

RE016 821

Forums over the Years . . .
Locations and Themes

Chicago—1961	(First National Institutional Research Forum)
Chicago—1962	(Second National Institutional Research Forum)
Detroit—1963	*The Role of Institutional Research in Planning*
Minneapolis—1964	*A Conceptual Framework for Institutional Research*
Stony Brook—1965	*Design and Methodology in Institutional Research*
Boston—1966	*Research on Academic Input*
Athens, Georgia—1967	*The Instructional Process and Institutional Research*
San Francisco—1968	*Institutional Research and Academic Outcomes*
Chicago—1969	*The Challenge and Response of Institutional Research*
New Orleans—1970	*Institutional Research and Communications in Higher Education*
Denver—1971	*Institutional Research and Institutional Policy Formulation*
Miami Beach—1972	*Reformation and Reallocation in Higher Education*
Vancouver—1973	*Tomorrow's Imperatives Today*
Washington, D.C.—1974	*Public Policy: Issues and Analyses*
St. Louis—1975	*Information for Decisions in Postsecondary Education*
Los Angeles—1976	*Conflicting Pressures in Postsecondary Education*
Montreal—1977	*Research and Planning for Higher Education*
Houston—1978	*Balancing Needs and Resources*
San Diego—1979	*Issues for the Eighties*
Atlanta—1980	*Meeting the Challenges of the Eighties: Redirection of Resources for Renewal*
Minneapolis—1981	*Toward 2001: The Institutional Research Perspective*
Denver—1982	*Responding to Qualitative and Political Issues*
Toronto—1983	*Integrating Human Resources and Technology*
Ft. Worth—1984	*The Revolution in Administrative Roles in Higher Education* May 6–9 The Hyatt Regency Fort Worth
Portland, Oregon—1985	April 28–May 1 The Portland Hilton
Orlando—1986	— —
Kansas City—1987	— —

The Association for Institutional Research
Executive Office
314 Stone Building, Florida State University
Tallahassee, Florida
Telephone: (904) 644-4470
Jean C. Chulak, Executive Secretary
Annabel Dick, Office Secretary
Julia Duckwall, Graduate Assistant
Paula J. Tumb, Part-Time Assistant

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Foreword

AIR 1983–1984 is the third edition of the composite *AIR Forum Proceedings/AIR Directory*. It includes information about the 1983 Forum as well as 1983–84 membership and organizational information. The scope of the materials can be seen on the facing contents page.

1983 Forum information. "Integrating Human Resources and Technology" was the theme of the Forum—held in Toronto, Ontario, May 23–26—which attracted 656 registrants. Three hundred one persons made presentations or contributed in other ways to the conference program itself. Nearly one hundred others served on planning committees. Mantha V. Mehallis was Forum chair. We have attempted here to acknowledge them all. Their efforts, as well as the efforts of the inevitable few who have been overlooked, are sincerely appreciated.

This book includes edited versions of the four general session addresses and abstracts or summaries of the other sessions. Many of the contributed papers will be entered into the ERIC system later this year. The ERIC "HE No." for each such paper is shown beneath the abstract, and ordering information is included at the end of the section.

Membership and organizational information. We note first, with sadness, the deaths of two AIR members, Merritt Sanders (during 1981) and Oliver Henderson (1982).

The 1982–83 membership (1628 persons) was listed in the yearbook, *AIR 1982–1983*, which was distributed last spring; that list is *not* being repeated here. We are, however, including a list of *new* members, updated through September 20, 1983. For one transition year only, members will have to work with two directories. We are sure they will show forbearance. *The yearbook to be published one year from now will revert to normal and will include all 1983–84 members as well as new members for 1984–85 (to date of publication).*

The officers and committees listed in this book are those for the year just beginning (1983–84). That will continue to be the case each year.

Minutes of the 1983 annual business meeting and annual reports of officers and committees are included in the governance section of the yearbook. Selection guidelines for emeritus membership, distinguished membership, and service awards (unchanged from *AIR 1982–1983*) also appear in that section.

We sincerely hope that this volume, *AIR 1983–1984*, and its companion, *AIR 1982–1983*, will prove useful to you. We welcome any comments or suggestions you may have for improvement of the yearbook.

Daniel R. Coleman
Editor, Forum Publications

Jean C. Chulak
Executive Secretary

September 1983

Important note: The listing of information about members of AIR is for their personal and professional use only. Appropriation or use of the list for other purposes (such as mailings or solicitations), without the express written consent of the Association, is strictly prohibited.

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1982–83 members were listed in *AIR 1982–1983* and are not repeated here; the listing of members by state, province, country, and institutional affiliation and the membership count by state, province, and country are also not repeated here. (See Foreword for explanation.)

Past Presidents, Past Forum Chairpersons, Distinguished Members, Emeritus Members, Recipients of the Outstanding Service Award, and Recipients of the Sidney Suslow Outstanding Forum Paper Award ..Inside back cover

SECTION ONE
AIR FORUM PROCEEDINGS, 1983

Integrating Human Resources and Technology
Toronto May 23–26, 1983

Note: Position titles and institutional affiliations used in this section have been verified for historical accuracy—that is, at the time of the Forum, May 1983.

AIR FORUM '83

Integrating Human

	TIME	TP	ELGIN A	WENTWORTH B	KENORA C	HURON D	KENT E	SIMCOE F	DUFFERIN G	CIVIC H	BALLROOM PEEL J	YORK K	NORFOLK L	OXFORD M
PRE	Sun a.m.	PRE 1												
	Sun p.m.	PRE 2			PDO		PDO	— PDO —			COM			
	Mon a.m.	PRE 3			PDO						COM			
MONDAY (23)	Noon–1:00	1					PDO							
	1:00–1:45	2								SPE	COM	COM		
	2:00–3:45	3	WKP	WKP	WKP	WKP	WKP	WKP					COM	
	4:00–5:00	4									COM	COM	SIG	
	5:00–6:00	5												
	6:00–8:00	6												
	8:00–9:00	7												
	9:15–11:00	8								SOC				
TUESDAY (24)	7:15–7:30	9	— SIG SOC —											
	7:30–8:30	10	SIG	SIG	SIG	SIG	SIG	SIG	SIG					
	8:15–9:00	11												
	9:00–10:15	12												
	10:30–Noon	13	CPR	CPT	CPT	CPT		PAN		SYM				
	Noon–1:30	14									COM*		SIG*	SIG
	1:30–3:00	15	CPR	CPT	CPT	CPT	CPT	PAN		SEM				
	3:15–4:45	16	CPR	CPT	CPT	CPT	CPT	PAN		SEM				
	5:00–6:00	17	SIG	SIG	SIG	SIG	SIG	— SIG —			COM	COM	COM	
	6:00–	18		SIG	SIG									
WEDNESDAY (25)	7:15–7:30	19												
	7:30–8:45	20												
	9:00–10:15	21												
	10:30–Noon	22	CPR	CPT	CPT	CPT	CPT	PAN		SEM				
	Noon–1:30	23									COM*			
	1:30–3:00	24	CPR	CPR	CPR	CPR	CPR	CPR	CPR	SYM				
	3:15–4:45	25	CPR	CPT	CPT	CPT	CPT	SPE	PAN	SEM				
	6:15–12:30	26												
THURSDAY (26)	7:15–7:30	27	— SIG SOC —											
	7:30–8:30	28		SIG	SIG	SIG	SIG	SIG			COM	COM	COM	COM
	8:15–9:00	29												
	9:00–10:15	30												
	10:30–Noon	31	CPR	CPT	CPT	CPT	CPT	PAN	PAN	SEM				
	12:15–1:45	32												
	2:00–3:30	33	CPR	CPT	CPT	CPT	CPT		PAN	SEM	WKP	WKP	WKP	
	3:45–5:00	34	CPR	CPT	CPT	CPT	CPT							
	5:00–9:00	35												
	9:00–Midn	36								SOC				
POST	Fri a.m.	POST 1									COM			
	Fri p.m.	POST 2												

*Varies somewhat from stated time period

KEY: CPR (contributed paper—author's roundtable); CPT (contributed paper—traditional); GEN (general session); PAN (panel); PDO (professional development opportunity); SEM (seminar); SIG (special interest group); SOC (social event); SPE (special session/open hearing/orientation, etc.); SYM (symposium); TT (table topics); WKP (workshop)

AT A GLANCE

Resources and Technology

CARLETON N	WINDSOR P	WINDSOR EAST Q	WINDSOR WEST Q	ALGOMA R	GRAND BALL - ROOM LOBBY S	GRAND BALLROOM T	CINEMA II U	SHERATON HALL V	OTHER Z		
											PRE
										REGISTRATION OPENS	
										Newcomers' Orientation	
		SPE			SIG					Budget Briefing/SIG Fair	
SIG	SIG	SIG	SIG	SIG	TT				COM		MONDAY (23)
					SOC					Cash Bar	
						GEN				Presidential Address	
										Forum Reception	
										Coffee (SIGs only)	
									SIG		
								SOC	SOC	Coffee / Spouses' Welcome	
						GEN			TOUR*	Keynote Address	
							PAN				
											TUESDAY (24)
							PAN				
							PAN				
COM				SPE				SOC		Open Hearing/Cash Bar	
									SIG/ TOURS *		
					SOC					Coffee	
						GEN				Air Annual Business Meeting	
						GEN			TOUR*	Forum Address	
							PAN				
											WEDNESDAY (25)
							PAN				
							PAN			Open Hearing	
									SOC	Forum Banquet	
										Coffee (SIGs only)	
								SOC		Coffee	
						GEN				Forum Address	
							PAN				
						GEN				Awards Luncheon	
COM*				COM							THURSDAY (26)
COM*											
										Wind-Up Party	
											POST

8

Invited General Session Addresses

IT AIN'T ALL BAD

Dean F. Berkley
Professor of School Administration
Indiana University

Note: The following is a summary of the principal points included in the Forum Keynote Address on Tuesday morning.

Despite the frequently voiced admonition that we not look back, there is comfort in knowing that a backward glance over our shoulder can give us valuable insight. It helps us to measure where we are against where we've been. It provides perspective and a sense of proportion.

Such is the case as I reflect on one of those bittersweet boyhood memories. It was a winter night on a South Dakota farm when Al Sarringer came to call. This giant of a man worked for my father. I cannot recall what they talked about that night in the flickering shadows cast by kerosene lamps; it could have been about the severe drought that had virtually wiped us out the past summer. Yet, I saw no signs of surrender, detected no loss of a sense of humor, and heard no harsh words. The poignant memory of that occasion is that Al put his huge calloused hand on my shoulder and said, "It ain't all bad!" That statement, indelibly impressed on my mind, prompts a periodic peek at the past. It provides a constant reminder, in moments of reversal, that somewhere the sun will shine, the moon will peek out from behind a cloud, and there will be a daisy to pick and a rose to smell.

Once in awhile, however, we are convinced that nothing falls in place. At such a juncture we need to pause and remember Al's admonition.

Two questions come to mind as I think of your role:

1. What was the hardest thing about milking cows? This question has its genesis in those rural environs. Milking cows may well be an unknown activity to many in our midst. The hardest thing about this chore was not the pesky flies, the hungry cats, the erratic swish of the tail, or the dreadfully hot barn on those summer days. Simply stated, the hardest thing about milking cows was the fact that it was never finished! Twice a day we became slaves to that task. It controlled where we went and how long we stayed. As a boy I thought it frustrating, inconvenient, sheer drudgery, and the genesis of ill will.

   I look at you and can't help but think that your role is tested in the same terms. You are never finished. There are always more data to analyze, new techniques to apply, different applications to examine, uncompleted requests demanding attention, more demands on your time, and the pressure for immediate action. The point is that your work is never finished.

   As with those frustrating chores of yesteryear, you must continue to cope. But is that really bad? If it weren't for the unfinished tasks, what would you do? Snoopy once said, "Happiness is having something pending."

   One might also suggest that happiness may be linked to how we view those never-ending tasks. As a boy I found it difficult to look beyond my own selfish ego, to recognize the necessity for self-discipline, or realize there were dividends in such mundane activity. We must come to grips with the fact that there are many tasks to be carried out long after the mood in which they were planned has left us. When that sentiment prevails, it "ain't all bad."
2. Do you know the territory? Years ago at an airport, I became acquainted with an auctioneer who specialized in the sale of registered Herefords throughout the country. He was lamenting the delay of his flight to Texas. He said it was his practice to get to the scene of the sale well in advance of the event. This permitted looking over the physical layout, reviewing the lineage of the stock, sorting out the serious bidders from the curious observers, and contemplating what unforeseen events might transpire. It dawned on me that he was devoting more attention to selling cattle in Texas than I was to planning my address to the school board members that night in Topeka. It flashed through my mind that the lead song in *Music Man*, "You Gotta Know the Territory," says something to each of us.

I repeat that very thesis to the aspiring school administrators with whom I counsel. Perhaps the most important ingredient in their survival kit will be their knowledge of their communities. From my vantage point, it is this single factor which will provide a margin of excellence to their performance.

Frequently on Sunday afternoon, my father would walk about the farm yard assessing what tasks had to be attended to in the coming week. He and his friends called it "Sunday Farming." Today we call it MBWA—Management By Walking Around. The territory is constantly shifting, and your role as institutional researchers is to assist others to become knowledgeable students of the community.

Indeed, two critical dimensions of your role are that *it is never finished* and that you help others to *know the territory*.

Your role could be characterized by its focus on technical information. You frequently become immersed in impersonal facts, and you are engaged in the constant search to better generate meaningful information. Despite these ingredients, you and all of us in higher education dare not forget that we are in the people business. All of our skills and talents are for the purpose of rendering assistance and service to others. Periodically, in a technologically oriented world, we need to step back and focus on the human equation. We do that in several ways:

1. When we serve as spokesmen and not apologists. There is a tendency for us to talk to ourselves too much. That can be comforting, and it often evokes a sense of security. There is a haunting challenge in the words of Dostoevski who said, "If the people around you are spiteful and callous and will not hear you, fall down before them and beg forgiveness, for in truth you are to blame for their not wanting to hear you."

   Communication results when we transmit meaningful symbols. You are the interpreters, buffers, and shock absorbers translating significant information into terms that other people can understand. This is an incredible responsibility.

   We don't need apologists. Information is power. He who has it and can interpret it in a meaningful and articulate manner serves as the spokesman. This becomes evident when you believe that what you are doing is important, that it contributes to an imperative of some consequence, and that it extends beyond your own work space.

   The spokesman is also willing to share. That is a human dimension. It suggests that we strengthen our own capabilities by sharing our expertise, resources, ideas, successes, and failures. The strength and vitality of the championship team or the vibrant institution is predicated on the willingness of the participants to share. Your presence at this AIR Forum is testimony to the fact that you gain by sharing with others.
2. When we are willing to declare dividends. This was made abundantly clear to me by a rancher friend some years ago. His land was parched, with little hope for any productive return. As he surveyed the arid expanse of land, he did not portray rancor, bitterness, surrender, or hostility. Although he was surely disappointed, he proclaimed some of the dividends that had accrued to him over the years or that he had made possible to others. It is easy to lament what's wrong and to listen for the motor knock. It is much more difficult to parade what's right, to declare dividends. His attitude made these lines of the Hoosier poet, Tramp Starr, so meaningful:

   Heard a feller up and say, in Bud Rawlins' store,
   "Farmin," he said, "just don't pay . . . dividends no more."
   I've got me a house an a garden patch,
   An some Plymouth Rock hens that's due to hatch,
   An I've got some pigs an a jersey cow,
   An some corn an hay for my crib an mow,
   An I've got me a beech an hickory grove
   To burn in my cookin an heatin stove,
   An I've got some wheat for my winter's bread,
   An a sorghum patch for a sweetnin spread—
   An this feller up at Bud Rawlins' store
   Says farmin don't pay dividends no more.

   I've got me a house on a patch of land
   An a happy heart an a willin hand,

An a love of the wind an sun an rain,
An the birds an the beasts an the growin grain,
An my days an my nights is free from care,
An the presence of God is everywhere
Renewin my faith with each bustin seed,
In a world gone mad with wars and greed—
An this feller up at Bud Rawlins' store
Says farmin don't pay dividends no more.

3. When we strive to balance conscience in a period of complexity. Many of us grew up in less complex times—times when we really believed people were loved and things were used, not the reverse. The brutal consequences of the impersonal nature of many of our organizations needs to be balanced by the willingness to care. We must constantly strive for ways to minimize the often impersonal dimension of a technologically oriented society or the bureaucratic pathways of the large organization.

   Much has been written and said about participatory management and, more recently, quality circles. These are ways of enabling participants to be a *part of* rather than *apart from*. Years ago, a high school principal wrote these lines on the chalkboard as a reminder for a new teacher:

   A little more patience with those we deem too slow;
   A little less arrogance because of all we know;
   A little more humility seeing our worth is slight;
   We are such trivial candles when compared to those at night.

   I was that teacher! The principal's lesson was clear. We dare not lose sight of the necessity to care and to balance conscience in a period of complexity.

4. When we put a bit of the medication of mirth in our survival kits. If you are like most people in the mainstream, you're probably laughing less and needing it more—physically, psychologically, and emotionally. Who isn't weary of worrying? Who doesn't live in a pressure chamber with the gauge on the rise? Who isn't boxed in by big cities, big business, big government, big egos, and big problems? No segment of our culture—sex, age group, or status—is immune to the growing grouch syndrome. Clarence Darrow warned many times, "If you lose your power to laugh, you lose your power to think." The admonition is simple: in our attempt to keep *stress* from becoming *distress* we must put a bit of the medication of mirth in our survival kits.

   A sense of humor irons out the wrinkles of the day and ultimately makes life worthwhile. It helps us overlook the unbecoming, understand the unconventional, tolerate the unpleasant, overcome the unexpected, and outlast the unbearable. Henry Ward Beecher once said, "A man without mirth is like a wagon without springs—jolted disagreeably by every pebble in the road."

   Really, *it ain't all bad* when we remember that laughter is the hand of God on the shoulder of a troubled world. It is quite possible that "he who laughs lasts."

You are to be commended for your persistent response to a role that *is never finished* so that all of us might better *know the territory*. When you serve as spokesmen and not apologists, are willing to declare the dividends, strive to balance conscience in a period of complexity, and recognize that laughter is no joke, It Ain't All Bad!

TECHNOLOGICAL INNOVATION AND STRATEGIES FOR INVESTING IN HUMAN CAPITAL

H. Ian Macdonald
President, York University
Chairman, Idea Corporation

Note: The following is a slightly edited version of the Forum Address delivered on Wednesday morning.

I am delighted to have the opportunity to discuss a concept which I believe is both novel among public institutions in Canada and significant for the economic future of this nation. I trust that the distinctive nature of the IDEA Corporation will become clear as I describe our program and our outlook. However, its significance must be assessed in terms of our situation in Canada today. And that is my starting point.

At any moment in history, it is easy to conclude that the present situation constitutes a crossroads, a turning point, a watershed or whatever cliché appeals. However, I am convinced that present circumstances require some fundamental and immediate decisions about the long-term direction of the economy. The gloom that pervades the press, the anxiety that afflicts the population, and the declining self-confidence of young and old alike are nothing compared to what the future will hold unless we make a determined effort to reverse present trends.

I ask myself: Why should this be so? Surely it stands in stark contrast to the hope and the promise that we see about us. Our young people, in all their endeavours, are a symbol of hope and strength for the future. Their sheer energy, creative talent, and youthful promise—wherever I observe them—suggest to me that people of my generation have much to answer for if we do not contribute to the fulfillment of the young.

I have been privileged to feel this every day now for nine years as president of York University. When I recognize the many contributions of my faculty colleagues—and the equally impressive talent of our students—I cannot help having confidence in the future. Our national pastime of self-denigration always astonishes me, because it seems so obvious that Canada's best years are still ahead. I thought it important to make that declaration at the outset, because it explains why I am spending so much of my private time, beyond my regular duties, in chairing the Board of Directors of IDEA Corporation and in helping to chart its course.

I believe that we must overcome three psychological obstacles in order to realize our potential.

1. The first task is to secure the attention of policy makers about long-run requirements at a time when they are preoccupied with short-term palliatives. When people are unemployed, when prices continue to climb, and when human misery appears to be increasing, it is entirely understandable that policy makers will give priority to short-term remedies. We all feel concern about those who are enduring economic hardship, and we all want to improve their lot. However, if we make that our sole concern, we will find that even governments will no longer be in a position to afford short-term remedies in adequate degree. In that case, we will invite social upheaval of unprecedented magnitude.
2. In order for governments to deal effectively with the longer term, a fundamental reversal of recent public attitudes and conventional wisdom is required. For nearly a decade, nourished by the exponents of "limits to growth," we have displayed an implicit and, more recently, overt attitude that economic growth is no longer available to us. The sustaining belief in economic growth, characteristic of over two hundred years of economic history since the Industrial Revolution, is no longer evident.

   Paradoxically, individual and collective expectations have continued to rise unabated until very recently when it has become evident that, without economic growth, the mainspring of our standard of living would run dry. However, as I am sure many of our American friends would agree, that view of Canada's future is certainly not evident outside this country. To

stand outside Canada and look in is to see a place of continuing opportunity when compared with so much of the world, but a very different opportunity from that of the past.

Therefore, the second need is to reverse our outlook and our view of ourselves and to commit Canada once more to a belief in economic growth. I should qualify the word "growth" by suggesting that it need not imply what it has implied in the past. A commitment to growth need not produce qualitatively more of the same kind of economic life that we have previously chosen. For example, the ballet is as much a part of the gross national product as bricks, and microbiology is as important as the production of bulldozers. There is certainly nothing inconsistent in taking some of the grossness out of the gross national product while, at the same time, adding to economic growth and development. In other words, the quality of economic growth, the quality of our lives, is determined by our own social values and attitudes.

I believe, contrary to many studies of the limits to growth, that there is sufficient capacity for economic growth for some decades to come, and that nonrenewable resources will not be a constraint on growth in the immediate future. Of course, in the longer term, we must devise the technological means of replacing nonrenewable resources and of greatly increasing productivity and efficiency in the use and allocation of resources. However, if we simply accept, as an article of faith, that we must get used to lower rates of economic growth and development, such acceptance will surely become a self-fulfilling prophecy.

3. If we are able to give long-term considerations the place on our public agenda which they require and recapture our collective belief in the growth prospects for the future, we must then set about the business of creating those conditions in which our long-term prospects can be fulfilled. No one would pretend that such an objective will be quickly realized. It will require a willingness to make fundamental changes in our priorities and to accept basic adjustments in the working lives of most of us.

Even if we commit ourselves to that task immediately, it is not reasonable to expect growth to reemerge in any significant degree before the last half of this decade. In Ontario and in Canada, we are relatively new arrivals in the land of "high technology"—the land of opportunity for growth—and we are still suffering from a form of jet lag. We have lost the time, in recent years, during which we should have prepared ourselves for our arrival in this land. Therefore, the road to recovery must necessarily be a long one because it includes catch up as well as progress. When I speak of growth in the latter five years of this decade, I am actually also speaking of growth in the 1990s and into the twenty-first century, as that will also result from comprehensive long-term strategy.

We can no more reverse our economic fortunes quickly than we can will a fractured bone to heal overnight. Thus, if we allow ourselves a reasonable length of time in which to improve productivity, time can be transformed from an obstacle into an asset. What I am suggesting we do, in considering the matter of economic growth and development, is change our perspective and think of growth as a longer process, spanning not only the latter part of this decade but also the next, and the next.

A new perspective for economic growth in the next twenty to thirty years will involve a combination of three factors:

1. A basic reliance on our human resources and their adaptability to change, requiring renewed and enlarged investment in education at all levels
2. An unprecedented commitment to technological innovation and adaptation
3. The restructuring of our economy appropriate to participation in the emerging world.

In the process, we must not only compensate for present unemployment but also allow for the displacement of people by technology from particular jobs. We must stop shoring up the inefficient or unproductive and redirect our energies toward areas where we may gain a competitive advantage.

All of that explains my own faith in the concept of IDEA Corporation. Frankly, I had resolved a few years ago that I would not become involved in government life again. I had become deeply concerned about the extent to which government was intervening in the economy and becoming so much a part of our daily lives. However, when I examined the nature of IDEA Corporation and its intentions, it seemed to me exactly what was badly needed—an agent in the bringing together of government, business, labour, and universities for the purpose of seeking out innovative

capacities and converting them into creative, commercial opportunities. I am excited about it because the proper role of government, in my view, is the creation of an environment wherein individuals, corporations, and entrepreneurs can play their most effective roles in enhancing economic opportunity.

IDEA Corporation has a responsibility in each of the three areas that I mentioned, although explicitly for the second. Let me recite the objects of the Corporation:

1. To promote the process of technological innovation
2. To bring together the research capacities of the public sector and those of the commercial and industrial sectors
3. To enhance the growth and employment prospects of the Ontario economy.

For the purpose of achieving those objectives, the Corporation has the power to do the following:

1. Encourage and promote programs of research, design, development, and demonstration of all types of technology applicable to industry and commerce and of economic benefit to Ontario
2. Promote and develop cooperation in research and its application among corporations, governments, universities, research centres, and individuals
3. Acquire, develop, and deal in industrial property, licenses, inventions, and processes and the royalties and benefits flowing therefrom
4. Promote and improve the capacity of universities to respond to the skill requirements of high technology industries
5. Provide advice to the Minister on issues related to the enhancement of technological innovation in Ontario
6. Do anything that, in the opinion of the Board, can be done advantageously by the Corporation in connection with or ancillary to the carrying out of the objects of the Corporation set out in the above clauses.

Of the three requirements—investment in education, technological innovation, and restructuring of the economy—I believe that the most important function of all is to enhance our human resource capacity by investing more in education. A recent study by the New York Stock Exchange (1982) has shown that the single most important factor in Japanese productivity is the high quality of their educational system, and that has been my impression from my own studies and observations of Japanese society. When the oil wells in Canada have run dry, our human resources, especially in this province, will still be the ultimate source of our capacity to innovate, to adapt, and to improve. There is a great deal of literature and research demonstrating the multiplier effects of expenditure on education and the ultimate returns in economic growth and development. I am surprised that more of this evidence is not adduced when this issue is being discussed publicly. For example, achievement in our universities is achievement for all of society, not just for students, scholars, or administrators within the university. Indeed, there is scarcely one socio-economic problem today which our colleges and universities are not uniquely well equipped to meet. We must help them to continue to meet those needs. Unfortunately, even if we were to broaden public support for our educational system tomorrow, we still would not enjoy the full effects of raising the capability of our young people until the turn of the century.

The history of universities has been one of a gradual process of democratization. Remember that the earliest books were so precious that they were accessible to just a very few scholars and were chained to their shelves. With successive stages in the history of printing, the production of books was rendered increasingly less expensive. As a result, we had lending libraries, greater literacy, and increased sharing of information and knowledge.

I believe that the removal of chains from the first books provides a wonderful analogy for what is now warily and fearfully called the Information Revolution. Today's technology, which should be no more frightening than the gradual perfection of the printing press, is a further throwing off of shackles. Information—the storage of information—has been liberated further from the limitations of the printed book. And in that liberation comes further progress in making information accessible to all.

In the new opportunities that technology offers for the storage and dissemination of information and knowledge, we have new metaphors for the learning process as well. Information now flows as freely from display terminal to display terminal as it has always done

from the mind of one teacher to the mind of one student as the two converse together. The difference is only one of accessibility. Where accessibility was once limited to a finite number of books, teachers, and universities, technology in the future may bring information to the masses, thereby culminating the gradual democratization of learning opportunities.

Universities need not fear for their futures in this process. Instead, they must adapt. It would be ironic, indeed, if universities resisted the changes that technology will bring and thereby lagged behind in the dissemination of information that leads to knowledge.

The true symbolism of universities actually remains unchallenged. No other agency is so well equipped as the university to teach people to think and to continue the learning process throughout their lives. But the means to our great symbolic purpose is changing. We must adapt to the new substance of teaching in a technological world in order to preserve all aspects of meaning and purpose—not the least of which is to interpret social change itself so that we may make sense of our very lives.

In order to allow for that, as I have already indicated, we must restructure our economy. I do not believe that such restructuring will be the product of any "broad industrial strategy." Each of four successive federal ministers of industry and commerce, of my acquaintance, began office with the announcement that his objective would be to formulate an industrial strategy for Canada. At the end of their periods of office, I asked each of them what went wrong. They were quick to confess that the political weight of having to choose between winners and losers among industries was a weight that they were unable to bear. The present minister of industry and trade in Ontario (Walker, 1983) has said, and I agree with him, "Picking winners is the business of the market place . . . of the energetic entrepreneur and the shrewd investor . . . of the wise executive and hustling market expert. Being a winner has a lot to do with attitude and determination and . . . the will to succeed. Governments cannot predetermine those attributes, nor should they" (p. 5).

I might add that picking winners and losers among our mature industries, not to mention our sunset industries, is probably an exercise in self-defeat at this point. We should not be looking backward and forming strategies for a great age that is now at or near its close. We should instead be looking forward and forming strategies for the sunrise industries at the dawn of the new age of technology. That leads me to our third objective—a higher level of technological innovation and adaptation and, of course, IDEA Corporation.

The achievement of a higher level of technological innovation and adaptation will not occur overnight. That is why I have taken pains to explain, at every opportunity, that IDEA Corporation is designed to promote long-term growth and that its success cannot be judged by the number of jobs created in the short run. Its whole purpose is to raise the technological threshold in Ontario and thereby to enhance the economic growth that is essential to the fulfillment of our expectations, the creation of higher levels of employment, and the survival of Canada in an increasingly competitive world.

It is worth reflecting for a moment on the words that make up IDEA Corporation's name: Innovation Development for Employment Advancement. The application of technology *does* change the profile of jobs and *does* involve some occupational displacement; there is no point in denying that. And what worker will not oppose that process if the consequence is simply that he or she will be out in the street tomorrow? That is why there are two corollary consequences of a commitment to technology. The first is the recognition that a major effort over a period of time is required to provide for a higher level of growth and, hence, more jobs overall. But secondly, the displacement of many particular jobs requires a major commitment to retraining, rehabilitation, and readaptation of people. The world of technology and the world of education are partners in progress, working side by side, but their paths must be carefully planned and their consequences carefully monitored.

I could spend some time describing the prototypes of IDEA around the world. There are many variants, and some have been in existence for some time; in fact, I am surprised that we have not produced a venture of this nature in Canada before now. So it is that we, in Ontario, are breaking new ground through the formation of IDEA.

I was impressed by the results of a study published recently by Professors Kristian S. Palda and Bohumir Pazderka (1982) of Queens University (on behalf of the Economic Council of Canada) to the effect that we have a good record of research and development in Canada. Of course, we must strive to do better and to encourage even higher levels of new research. However, what is truly important is the adaptation of existing research to commercial enterprise.

That is why the role of the Corporation will be to confront major impediments to development in the technological world and to assist in breaking them down. It will act as a catalyst in converting good ideas into commercially viable products. It will be the mechanism for searching out and evaluating, systematically, new technology that might otherwise lie dormant and unknown in universities, government laboratories, and businesses. It will help to fill the resource gap by providing funds to the private sector, for the development of new ideas, in exchange for a share of future royalties. At the same time that it facilitates access to research, it will seek out the skills required for conveying projects from the conceptual stage to the process of commercial application. In so doing, the Corporation will develop a clear overall and systematic conception of innovation research in Ontario.

We will also provide a large part of the response to a goal described in a recent letter to the editor of a Toronto newspaper by D. J. Doyle (1983), president of Doyletech Corporation in Kanata, Ontario. In that letter he wrote: "Clearly, we need a national will to compete with the Americans in the creation of technology and with the Japanese and Koreans in the exploitation of it. I'd like to see some public discussion on the mechanisms which will make that happen."

May I suggest that one such mechanism has arrived and is now in place. IDEA Corporation is an idea well conceived for the times. Let me describe briefly its operational plan.

During the early months of our existence as a Crown Corporation, we faced some major, fundamental issues. One of the most important was how to maximize the investment that was being made by the Province of Ontario in the technological advancement of our industries. What became clear, in the early stages of our development, was that we could arrange the greatest leverage for the province's funds if we were to attract private-sector capital into our investment activities. Thus, cooperation between the public sector and the private sector in determining venture capital investments became our most important operational principle.

Another fundamental issue that we grappled with was how to approach the marketplace. We had to decide whether to be pulled by the marketplace or whether to attempt to push the marketplace in a direction we wanted it to go. In the end, the decision turned out to be a relatively easy one to make. Our view was that, to succeed, technological innovations have to be accepted in the marketplace—the marketplace of Ontario, of Canada, and indeed, of the world. Our view, like that of so many truly successful Ontario businesses, has to be a world view that is outward looking. And we must accept the verdicts of that marketplace. After all, the essential purpose of IDEA Corporation is not to perform basic research but, rather, to advance the process of commercializing technology—by putting ideas to work, by acting as a catalyst for innovators, and by encouraging our industries—in order to spark great industrial progress.

Over the past few months, IDEA Corporation has been organized to operate in three key ways:

1. It will be acting as one of the most significant venture capital groups in Canada, investing in innovations and technological development.
2. It will be functioning as a broker of technology—that is, acting as a middleman between inventors and researchers who have ideas and innovations and companies that can put those ideas to work.
3. It will be taking on a substantial role in public policy development and public education.

Let me describe each of those items more fully, focusing on how we see IDEA Corporation as a catalyst acting between the public sector and the private sector in this province.

First of all, the Corporation represents a real and substantial commitment by the Ontario Government, through its Board of Industrial Leadership and Development. The business plan of the Corporation, which was approved by the cabinet on January 12, 1983, involves the commitment of $107 million of public funds over five years. Part of these funds, of course, will be directed toward the operating expenses of the Corporation, including the technology brokerage function that I mentioned. However, the major portion will be directed to our venture capital function in the marketplace.

To increase the amount of capital that is available in Ontario's venture capital activities and to provide access to venture capital opportunities for various investors from the private sector, we are now establishing five IDEA Technology Funds. These funds will provide a unique opportunity for cooperation with the private sector, represented by investment from such sources as pension funds, insurance companies, and others. The funds will focus on various sectors of industry, categorized as microelectronic technology, biological and medical technology, informa-

tion technology, chemical and process technology, and machine and automation technology. In each case, management will be the responsibility of independent fund managers, operating with a clear set of investment criteria.

In addition to the five technology funds, the Corporation has established two other funds that will remain wholly owned. First, the IDEA Research Investment Fund will finance innovations at an earlier stage of development. In return, the fund will expect to be repaid by royalties on the eventual value of the research or innovation. Second, the IDEA Innovation Fund (wholly owned by the Corporation) will invest in a broad range of technologies and projects—which, for a variety of reasons, may not be suitable for one of the technology funds. For example, if the resources in a more appropriate fund are tied up, the Innovation Fund can solve the simple problem of timing by supplying the necessary monies until they become available elsewhere.

Thus, the Corporation will be helping to advance the process of innovation in this province at almost every stage of development—start up, prototype, operational, and profitable. In fact, probably the only major stage in the development of a company in which we will not invest is the "rapid expansion" stage, which is typified by demand for a product beginning to grow rapidly. In such cases, companies typically have satisfactory profits but not sufficient cash flow. At this stage, we expect that more traditional financing alternatives, such as bank financing, will become available to entrepreneurs in Ontario.

The second major function the IDEA Corporation will assume is technology brokerage. In this role, it will seek out commercial opportunities for exploiting innovative technology. It will help to fund potential investors for ventures with a high-technology component and will assist newly formed companies to prepare themselves to attract financing. Its view will be outward looking—keeping its eye on commercial opportunities for Ontario companies, not only in the rest of Canada but, indeed, also around the world. In the process, it will be intimately involved with the research capacity of the province, particularly in the universities.

Finally, IDEA Corporation has a substantial role to play in helping to develop public policy so that Ontario can continue to enhance its potential for productivity improvement. It also has a responsibility to promote public understanding of the importance of pushing back the technological frontier and exploring new territories where innovation and economic opportunity meet. The intent is to develop major programs to meet those objectives.

Clearly, the challenge for IDEA Corporation is exciting, and I believe we are building a staff that is worthy of that challenge. However, the real challenge in the world of developing technology is not just to the Corporation but to Ontario. As I suggested at the outset, I have little doubt that the future for Ontario, and for Canada, can be bright indeed. Our base of resources, of people, of educational institutions, of governmental institutions, and of corporations is strong and vital. We have much on which to build. I have been privileged to be a part of that in governmental and university life. I feel equally fortunate to have been entrusted with this new public responsibility which involves the lifeblood of our economic system: innovation development for employment advancement.

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(*Note: Mr. Walker's term as Minister of Industry and Trade was completed in July 1983, when he was appointed to the position of Secretary for Justice, Province of Ontario.*)

FUTURES: THE EFFECTS OF NEW MICROELECTRONICS

Alexander Shure
Chancellor, New York Institute of Technology and
Chancellor, Nova University

(Note: The following is an edited version of the Forum address on Thursday morning.)

Futurists herald humankind and machines as destined for an incredible and marvelous merger. The machines of which they speak are the computers, ultimate tools either in their own right or in controlling other devices. Computers have become smaller; their capacity grows greater; and the humanitarian applications of these astounding devices are staggering. We are being hurled out of our world, a comparative stone age in its technology, into a new era. The propulsion system is our own intelligence operating in what is becoming a computerized universe that functions in speeds of trillionths of a second. If Guttenberg had been here to invent his technology as recently as 1960, the world would now be learning to read. Goodbye Guttenberg. As a result of the computer, we are caught up in social transitions that will make all past revolutions pale.

The next quarter century of microelectronics will yield enormous resources for the research practitioner. Without intelligent application of the new devices, the end results may be less than the inherent potential. Within the next twenty-five years, the systems can become universal in their applications and an absolute necessity in the world in which we live and work. Researchers can now create a carefully managed environment in which creative thinking, visualization of effects and their causes, algorithmic treatment of stored information, instantaneous sharing, manipulation and display of data, and the enhancement of the individual's personal needs are attainable within logistic and economic parameters.

We hope to improve the quality of life through the research in which we are engaged. The computer is now a device to control and disseminate information; it can even intervene in our very life processes as a regulation device. From behemoths of forty years ago that filled buildings twice the size of this one with limited computing power, we have moved to increase the computer's information-processing capacity a million fold. Some current computers exist, in total, on one microscopic chip and fit, in total, within a standard-sized paper clip. These are beginnings. The Japanese have announced a crash program to produce a new generation of computers—machines quasi-human in their capacities, capable of speech comprehension and generation, with an artificial intelligence of high order. Whether or not this goal is achieved, the research is on. We have taught the computer to compute at dazzling speeds and to do rudimentary reasonings, but we have been unable to give it the basic qualities that make the human spirit and mind unique: the power to emphasize, think, react, and judge with love for fellow human beings. You will never be replaced by our ultimate machines, for these human qualities are the unique properties of humankind. Yet, through your research efforts you can contribute to causes which enhance these very properties.

Regardless of the course on which we embark in the future, essential changes influenced by the computer have already affected the most fundamental aspects of every level of our society and its enterprises—arts, video film, work, education, law, medicine, travel, politics, our homes, and even aspects of our personalities and human relationships. Today, when the media asks, Do you know where your children are? the answer is often, Yes, with that new personal computer, playing video games.

The computer has an impact everywhere. Yes, everywhere! In sports, computer technology and the biomechanics that derive from it help athletes sharpen abilities. Computers are helping to improve athletic quality to the extent that virtually every record now existing will be shattered in the near future. Computers help, but we need to remember that, except in the video arcades, computers don't play the athletic games, humans do!

The computer has an impact everywhere. Yes, everywhere! Our generation now uses

technologies with limitless permutations. In music, film, video, and art, valuable new computerized performing tools are on hand. The computer has also emerged as a new art form of great power. From composition to paint, from Bach to rock, the computer adapts itself to every media.

Computer literacy will be an educational requirement of the 1980s and 1990s. Such literacy will be essential to the students of these decades, yielding a capacity to communicate with and through the computer. It will be as fundamental to their economic survival as reading, writing, calculating, or using the present-day communications channels.

If all of this is true, why should we not have the same advances in computerized research that we have had in other fields? Remember, our children are now being born into a society undergoing the most pervasive and important revolution in the history of mankind—the Information Revolution. Today's decision makers must face the challenge of providing an educational system that is most effective within this new information environment. Only with sophisticated research will this be possible.

Some early alchemists spent their entire lives in unsuccessful efforts to transform mundane elements and compounds into precious metals. According to some present-day wags, those goals have been met in these modern times: OPEC was first, converting oil into gold. The semiconductor manufacturers, in virtually the same time frame, discovered how to perform a similar miracle with a form of sand, silicon dioxide. The large scale chips now produced are inexhaustible fonts of gold for those who learn to mine and use the endless variety of products produced.

Among the more dramatic applications of the chips is the continuing evolution of increasingly powerful and ever less expensive computers. Two decades ago, computers came with two principal characteristics—they were big in size and big in price. The arrival of the large scale integrated (LSI) chips marked the introduction of minicomputers. Suddenly, computers could be purchased for thousands of dollars rather than millions.

The trend toward the personal computer began about a decade ago, coincident with the movement to very large scale integrated (VLSI) circuitry. Computers began to appear everywhere—in the homes and offices of hobbyists, executives, educators, lawyers, doctors, secretaries, and others, many of whom had seen computers only in the media. For many, the personal computer in the home, school, and office was an easily attainable reality.

Like the rush of the population of a bygone era into the Yukon or California, the word spread. The computer was the map to this lodestone, and the gold to be found was in the software that made the computer the key. Whatever the applications—heuristics, electronic mail systems, word processors, graphics, intelligent terminals—all were part of distributed data processing that was, in turn, only a subset of emerging communication technology. Gold, Gold, Gold! It was, is, and will be everywhere, spewing forth from the microprocessor-derived applications. To confront this vastly changing world, we have to learn to use the tools that are changing our lives so quickly.

A quantum leap is fueled by the microchip—a tiny slice of silicon which stores information. This almost invisible piece of complex electronic circuitry has been called the "creator" of the Information Society. It is behind the most recent revolution in human communication.

A Phi Delta Kappa study, *Education for a New Millennium* (Shane, 1981), describes four distinct revolutions in human communications. The first permitted the species to transfer knowledge from one generation to another. This was the human phenomenon of complex speech. The second was writing, which allowed persons to transfer information beyond the face-to-face situation. This was augmented exponentially by the third revolution, the invention of movable type, which provided access to information to a far greater number of persons. It is the fourth revolution, the silicon chip revolution still in its early stages, which will have the most profound and rapid effects upon our society. It makes us the Information Society. It makes the researcher an aristocrat within such a society.

The silicon chip will have a profound impact in education and the marketplace. Harold Shane (1982) pointed out that in 1980 those persons in the work force who handled information and dispensed communication in its many forms constituted 50% of U. S. workers, far outstripping other occupations. On the global scale, the increase in satellite television transmission increased dramatically in just a fifteen-year period. Information is now a commodity to be accessed in education and bartered in the marketplace. It is distributed via radio, television, microelectronics, the computer, and other evolving electronically related miracles.

Information-handling costs have not reflected the price escalations of most other commodities distributed in the world's trade exchanges. In fact, they have dropped sharply in the last twenty years, in some cases as much as ten-thousand fold.

"Miniaturization" techniques—used to etch integrated circuits on a chip—boggle the mind. Analogy best illustrates the power of the chip. The first digital computer cost half-a-million dollars, weighed thirty tons, and was the size of a house. It used over 18,000 vacuum tubes requiring 130,000 watts. Today we etch the equivalent of 60–70,000 vacuum tubes on a microchip. Shane summarized that an all-tube computer of 1945 vintage but capable of doing the work that we have come to expect of contemporary table-top models would have had to be the "size of New York City" and would have required "more power than the whole of the city's subway system."

The future result is predictable. Today, computers on a chip, coupled with the multifaceted capabilities of telephonic equipment, are playing a major role in the advancement of information processing. The integration of miniaturized computers into communication equipment is commonplace. One result is the availability of low-cost, stand-alone, intelligent terminals, designed with integrated microprocessors, computer memories, and graphic display capabilities. In education, microprocessors, available at a minute fraction of the costs of earlier computers of equivalent powers, permit an expansion of computing and communications simultaneously. In the simplest networking applications, microcomputers can communicate over conventional telephone lines. In the most sophisticated applications, such terminals can interact via satellite within a global communications network.

The global potential of the silicon chip is there, but what of the here and now? Our research and development activities at the New York Institute of Technology (NYIT) have given us the opportunity to investigate and develop instrumentation for the educator, the artist, the architect, the researcher, and the software developer to use most effectively.

(A multimedia demonstration followed.)

The visuals were examples of possible interfaces between electronic, video, and computer technology which are being used to produce computer graphics at NYIT. Inherent in the presentation were revolutionary tools for the communication specialist, the instructional designer, and the researcher. The pictures were produced from beginning to end without conventional cameras or animation stands, without animators to do customary intermediate drawings, without the painting of conventional cells, and without the technical constraints of past practices traditionally used in the assembly of complex animated images. All of the pictures were generated by the computer. At times, only a scientist's mathematical algorithm was needed to produce the finished product—with no additional human intervention other than that by the computer and video technicians who manned the equipment.

The examples included (1) multiplaning done by the computer (the use of multiple moving objects, all with different textures, for a variety of surfaces, and all applied in perfect perspectives within the multidimensional moving picture) and (2) the blending of computer science and art. The capacity also offers new ways of presenting data through computer graphics. A fertile research field deals with the psycho-optics of data presentation via computer graphics.

A great deal of work is being done in educational research within education, industry, and the military. Such research spreads through all disciplines, all grade levels, and all institutions. It also sometimes passes from experiment to proven and routine use of approaches, materials, and techniques, both learning and managerial. The promise of research outstrips its present reach. It is still evolutional and is, as yet, far from a proven or applied science. It is not yet an art nor is it an established academic discipline. Missing is the central body of theory and career research needed by scholars concerned with evolution of a total computerized research system approach to education. Not enough is known about the true nature of learning and of the educational process. It is necessary for us to know more about how learning occurs with heterogeneous groups of students. We must understand exactly how intelligence, motivation, environment, learning style, personality, and other factors affect the precision of a true educational technology research system.

Informational technology brings to many teachers a vision of invasion of their authority in the classroom, a loss of autonomy, degradation of professional privacy, and separation from the student. Their perceptions are of a downgraded position, loss of recognition and prestige, and reduced rewards. This is a problem with which we must deal.

Major Technical Systems

There are several major technical systems which will influence change. They include the following:

1. Broadband communications. These systems are capable of transferring a very large number of visual or audioelectrical signals to allow any kind of educational transmissions to audiences at almost any distance. Coaxial cables, microwaves, satellites, and lasers make it possible to structure large numbers of telecommunication networks with almost unlimited capabilities. These networks could tie public and private educational institutions together and feed information directly into the home.
2. Computers. The great strength of this technology (which includes calculators) is its ability to provide vast amounts of information to the user. Central time sharing and/or the use of mini- and micro-computers will make available to the educator greater ranges of access to computer projects.
3. Mathematical modeling. Complex educational-economic-social systems can be structured through mathematical simulation. When coupled to computer capacities, an extended range of information becomes available.

   The computer, together with modeling, permits rapid access to huge amounts of information and gives its user the capability to manipulate the data in many ways. The computer is specially effective in analysis and portrayal of statistical data. It is equally effective for games and simulations allowing users to change the values of multiple variables in a given problem and to observe the results of such changes quickly. The use of computers for simulation is one of the newest extensions of educational technology. Entire laboratory experiments can easily be replicated by computer simulation. Some are in areas that would be prohibitive in normal environments because of space, costs, or hazards. Virtually any scientific or technical subject can find useful computer laboratory simulations. The process can be surprisingly like the real environment. The best part is that there is no glassware to be cleaned, no breakage fees to be paid, and no pilferage—except sometimes of the newer microcomputers themselves. The level of student interaction with the program is optimum.
4. Video reproduction. The capacity to store motion pictures in compact form on videotape decks or videodiscs for replay at the convenience of the student, coupled with broadbank technology, offers promise of combining video and computer technologies to develop virtually unlimited systems for transferring moving pictures of digital data. Through this combination, we can send to any audience any amount of educational programming, with illustrations and sound. Further, a videotape or videodisc does not even require a transmission system, needing only transportation to move from the originator to the point of playback or from one point of playback to another.
5. Books and graphic devices. The availability of inexpensive copying devices and the breakthroughs in graphic techniques have enhanced the use of one of education's major visual arts, the book. The recent proliferation of paperbacks is an example of improved print technique graphic capabilities.
6. Miniaturization. Microfiche technology now allows a substantial area of miniaturized images to be placed on transparent materials for use by anyone seeking information. This can be done at the convenience of the user through enlargement on either a reading machine or by reproduction onto a piece of paper. An entire major encyclopedia volume is presently available on a single fiche measuring 3" x 5".

   Never before has so much information been generated, coded, systematized, categorized, and stored for utilization by the human race. In the past, there were major time lags between scientific and technological advances and their application to social problems, but acute research questions today demand immediate access to information. A composite of the technologies just described promises solutions.

Management Approaches for Institutional Research

Think of the contexts you consider appropriate for your research. Now, consider the rapidly changing nature of institutional research as it is called upon to serve the needs of academic managers in a period of scarcity and open competition, a period when the pool of traditional-age students is expected to shrink by 26% and when 15% of existing colleges are expected to fail or be transformed through merger and acquisition. It is already clear that the climate and

management of higher education are changing daily as colleges become more future oriented, sharper, leaner, and more attuned to the hazards and opportunities that lie outside their walls.

George Keller (1983) in his recent book, *Academic Strategy*, described a pattern of new management approaches that have direct implications for people in institutional research. His findings were based on extensive research and visits to forty-three representative campuses. They are as follows:

1. Colleges are becoming much more sensitive to and interested in regularly monitoring their environment—economic, demographic, competitive, marketing, legislative, and regulatory. Presidents and their advisors are seeking regular information on trends that have a direct bearing on decision making. Information must be readily, if not instantaneously, available; it cannot be contained in a bound, once-a-year volume that is probably out of date before the dust begins to gather on it.
2. College and university administrations are becoming acutely aware of the need to analyze their own resources in light of what they view as threats or opportunities in the environment. Decision-making groups are recognizing the need to monitor closely the growing programs, shrinking programs, service departments, current trends, and proposed decisions involving everything from financial aid to team uniforms.

   The earlier, less insistent approach to college administration was well illustrated by Keller who wrote that at one campus the president reportedly was visited by a group of disgruntled engineering professors who told him that, while enrollments in the engineering school had increased 20% in the previous three years, the number of faculty positions had not. The president appeared to be surprised by this information. When Keller mentioned the incident later to a leading historian at the same university, he was urged to be quiet. "Our department," the historian said, "has lost one-third of its students since the early 1970s, but we still have the same number of faculty."

   You may recall similar incidents. In more leisurely times, data gathering and report generation were more ceremonial than functional; data collection was more an end in itself than a decision-driven activity.

   There is growing emphasis on deciding—as contrasted to planning or just going with the flow. An increasing number of academic managers seem to be following the advice of the successful president at Cadbury's Chocolate: "Ready, Fire, Aim." These managers see the timely access to data as part of being "ready."
3. A more open administrative style has developed—decision making clearly established in the president's office but information widely disseminated through the college community. At the State University of New York at Albany, for example, the assistant to President O'Leary says, "Our general budget is now an open book." The tendency to favor wider distribution of institutional data has solid implications for institutional research operations.
4. Finally, the future is replacing the past as the most powerful determinant in charting a college's course of action. The shape of things three to five years from now is much more compelling than familiar references to tradition and "the way we've always done things here."

In higher education, the opportunity to stop the world and get off has long since passed, and even the most ostensibly secure institutions are moving into strategic planning which requires ready access to information in support of decision-oriented management.

Let me emphasize that the microcomputer, growing exponentially in power and capacity, must do more than provide management and managerial information. Let me hypothesize the need for a total educational research system for the future, one capable of answering the myriad of questions we will want or need to have answered.

Overview for the Researcher

The greatest future impact of the computer upon education may very well be its capacity to manage total systems. The computer can guide the learners, professionals, and agencies involved in education toward their goals. Sophisticated information processing should result in more efficient decision-making processes, more relevant instructional management tools, and increasingly effective manpower-solving procedures. Such potential can and should be used to develop ambitious and far-reaching procedures which will affect present-day education, principally by providing accountability and evaluation measures for the various constituencies concerned with the education process. Once operative, useful information will become available

as to what works or what does not and where gains occur or where they do not. The criteria must be useful and acceptable to the users of the system and not imposed *a priori* by systems designers.

The advent of large-scale computerization has led to transformations in the field of education, including these:

1. The use of computer systems designed to yield effective evaluation, accountability, and management information for constituencies concerned with the educational system
2. The use of the computer to teach and/or problem solve (computer-assisted instruction) and to manage and/or monitor varied subject matter content (computer-monitored instruction)
3. Provision of guidance related to educational mission
4. Development of computer literacy training programs for personnel.

Additional concepts using computer/communication systems that will be reflected in the coming decade include these:

1. Eyeglass and mirror—where the computer lets the learner see more clearly what he or she is doing and "reflects" to an observer the progress being made
2. Articulate expert—where the computer carefully doles out information only at the request of the learner
3. Low-cost simulator—where low-cost computers with graphic capabilities do simulation modeling; a technique that has proven very successful
4. Menagerie (for young children)—where the computer uses rudimentary graphics for shapes like balloons, animals, and others that are familiar to young children to teach spelling, grammar, fractions, and so forth; an area of research in which the universities are heavily involved
5. Word processor and electronic mailer—where computer usages are varied and imaginative
6. Artificial intelligence—where the computer is used to enhance the capabilities of software engineering.

Frequently, little if any use is made of successful innovative educational practices, models, and methodologies because of a lack of information and transmitted professional know-how. The usual educational establishment is bereft of sufficiently rapid feedback on which to base corrections for deficiencies using any combination of the following: inadequacy of environment, resources and methodologies; mismatch of teacher and learner; insufficient prerequisites and preparation; poor learner attitudes; and other tangible and intangible factors which influence the effectiveness of the learning process. It is hardly surprising that talent and funds are eroded by inefficiency. Educational planners hope the sophisticated capabilities of modern technology can reverse the pattern.

A massive, computer-based, information-system effort to identify those means which provide the most usable information and to develop an evaluation system that will optimally relate the best procedures is one way out of the current crisis. Sound principles of educational accountability dictate that we discontinue devoting all of our efforts to assembling data and that we begin the task of genuine assessment.

A workable educational accountability and evaluation system must provide information for each one of its prospective users; an individual must be supplied with evaluation data that is explicitly relevant to the particular facet of the educational endeavor he or she wishes to examine. Clearly, not everyone perceives the educational enterprise from the same perspective. The local PTA community group may ask about Ivy League college acceptance rates for its school while another may ask about community college admissions levels. The English teacher may wish to know the mean reading level of the tenth-grade students in his school district, while the college president may want information about personnel budgeting procedures or the relationship in specific academic programs of the per-pupil cost of education to subsequent academic performance and attrition. An evaluation committee concerned with career education may wish to ascertain the effects of past curriculum changes on the post-graduation performance of former students. Students may desire guidance information. In essence, an accountability information system which is not flexible enough to supply a wealth of information to different groups, in formats they will accept, is simply not usable.

A malleable system design, a readily accessible data base, and information for evaluation of education on any dimension relevant to the users of a specific system are essential for complex

exploration of the educational process. These requirements necessitate that the information system must be broad based, free of the attitudinal and value biases of its designers, and sufficiently flexible to be responsive to the attitudinal and value biases of its users.

Simple information, such as a comparison of individual types of student achievement against a national norm, has been accessible for some time. Evolving technologies, however, have facilitated the growth of information systems capable of more sophisticated evaluation. With such systems, complex new endeavors are possible. One can, for example, look at amalgamations of variables which previously were not subject to direct evaluation due to confounding effects. One can now begin to record the combined effects of environmental and strategic variables on the people being served by a given educational enterprise. The results of such a systematic data analysis do not imply any superlative or mandatory pedagogical procedure, but they do provide guidelines on the effects of specified combinations of variables on performance in the educative process.

Such information systems can serve to establish evaluative baselines that are currently lacking in the educational profession. Evaluation is impossible without such guides. An information system can supply the criteria for evaluators seeking to explore educational processes.

An educational program is about to be evaluated. What is to be the criterion of judgment? Will it be the length of learning time? The cost per pupil? The retention rate? In times of war, rapid military training in some areas is critical. Then, assuming equivalencies of learning and retention, it is time as opposed to money that assumes an evaluative priority. Similarly, the ratio of pupil-expended time to pupil successes to dollars spent might be the major criterion for evaluation of an adult educational program. (For example, perhaps the attrition rate is high because the length of time required for completion of the program is too lengthy to meet the pressing needs of an active adult.) In any specific case, the criterion of judgment must be considered. At present, this judgment is often based on the intuitive perceptions of an evaluator. An information system could provide a baseline. The evaluative baselines generated by an information system will not serve as overnight cures to educational ills, but they will supply clues to what can be considered adequate performance in specified educational situations.

By way of analogy, let us consider two doctors. One resides in upper Sutton Village and the other in Mining Town. The rate of tuberculosis, extremely low in Sutton Village, is substantially higher in Mining Town. Thus, the incidence rate of tuberculosis "acceptable" to the doctor in Sutton Village is less than that of the doctor in Mining Town, where the susceptibility levels to TB are higher as a result of environmental conditions. The doctor who permits a small, unchecked increase in the TB rate of Sutton Village would be likely to find himself in greater difficulties with the local authorities than would his counterpart in Mining Town. Clearly, the accountability of the two doctors is dependent upon baseline conditions relating to the mean incidence of that disease in their different environments. Similar analogies might be drawn for the surveillance of maternity cases. An excessive mortality rate might result in an official evaluation of a doctor's medical prowess. The baselines for comparison, however, could well vary with the locale of practice.

It is equally essential that teachers, as professionals, be held accountable for excessive "mortality cases" within the schools. Yet what are the baselines? What can the average teacher accomplish with a class of specified number, age, sex, racial, religious, and socioeconomic characteristics found within a given environment? The information system can provide the knowledge of baselines, structured under specific conditions, that will facilitate evaluation and accountability in the teaching profession and in other educationally related occupations.

A variety of factors has an impact upon a pupil's learning ability. As one example, consider the requirement that the ability to read is basic. Regardless of the way in which normal pupils have been victimized by their environments, they still function by recognizing symbols for objects and ideas. Admittedly, learning to read means more than simply recognizing the printed word; it also means developing in the pupil an awareness of the complex process of language, which leads to the growth of the analogical faculty. Literacy is fundamental to true occupational success. When one has learned how to make and verbalize analogies, one has learned a basic component of clear thinking. Further, one has also mastered a key prerequisite to upward occupational mobility.

It has been demonstrated that reading scores may be significantly improved. A massive $21,000,000 program in New York City in 1966–67 involved 267 schools and 130,000 pupils and resulted in a significant improvement in scores. To date, uncertainty lies not in the fact that levels

of achievement can be raised but in a lack of information concerning the essential components underlying this improvement. An accountability system would do much to help in such a determination. The correlation between reading skills and future learning is assumed. The merits and practices of typical reading systems and the effectiveness of alternate approaches to learning deficiencies (such as a system reliant in part upon computerized and/or audiovisual literacy) could be followed carefully if such systems were available.

Characteristics of the Accountability Design

Many colleges, particularly the career and community colleges, have established virtually open educational enrollment practices. Inherent, therefore, in the projected design is the belief that it is not enough to give an academic education to a small proportion of our most apt high school graduates, nor is it enough to provide the more marginal student with an opportunity to "sink or swim" in a college environment, for all too often this merely allows another experience in failure. What appear to be needed are new instructional techniques which are sufficiently powerful to enable a much broader range of students to cope more successfully with diverse curricula than has been true in the past.

Two continuing broad phases must characterize the systems evolved. The first is to develop an educational format which is appropriate to the needs of a relatively heterogeneous student body and to do this through an instructional management program, employing resources and guidance growing out of modern educational methodologies. The second phase involves implementing such a model and making it responsive to the needs of users.

Clearly, the aims and activities are ambitious and difficult to attain. Hope of success rests largely on the belief that instructional management using systems analysis makes possible an operational program which realizes significantly greater efficiencies than currently attained. As soon as a model can be made truly applicable to a much wider range of students (the regular, the professional in need of upgrading or updating, the advanced, the geriatric, the pre-school, etc.), its significance for all of education will increase materially. Further, if the system is inherently self-improving and is flexible enough to include interaction with tangential environments (industry, labor, community, etc.), then new dimensions in education and training may be anticipated.

The model envisions the provision of several desirable outcomes:

1. A generalized, self-improving model for instructional management applicable to a heterogeneous population in diverse environments
2. A test bed applicable to post-high school populations, including academically and economically disadvantaged youngsters in occupationally related programs
3. A sharper focus on unanticipated needs for (1) and (2) above, resulting from empirical feedback following implementation
4. A design model which can be a basis for a total system applicable to the general needs of education
5. A design model which can test alternative routes of higher education, in consortiums with public and private sectors not normally fully utilized, to advance efficiency and reduce costs of higher education
6. A design model which can serve as a basis for the development of accountability and evaluation guidelines against which there may be established higher standards of efficiency for given dollar expenditures
7. A set of guidelines for performance contracting and independent educational accomplishment audits.

Accountability in a system presupposes both obvious and subtle components. It demands that both the system's interactions and its component operations be made available for scrutiny so that verification of outcomes is possible. It implies that the outcomes will be related to the objectives to determine the extent of achievement. It suggests that dynamic forces will be operated to correct deficiencies and improve the system. It insists that the system interact with the environment because, even in minimal interaction, the environment includes the observer to whom the accounting is provided.

The Design Model and How It Operates[1]

The Generalized Educational Management System. I will describe briefly the goals for a researcher's system plan which incorporates the power and flexibility suggested so as to be

applicable to a wide range of educational situations. The designs are those evolved since 1964 by the Advanced Systems Laboratory of the New York Institute of Technology (NYIT) as part of its continuing research into the structure of relevant educational accountability and evaluation measures. To this end, a major effort of the laboratory's cadre continues to be concerned with the development of a Generalized Educational Management System (GEMS). Conceptually, GEMS is based on three component capacities:

1. An advanced data file access/retrieval file handler capability
2. A simulator availability
3. An adaptive feedback mechanism.

The total system represents the synthesis of a variety of subsystems which have been conceptualized, developed, and to varying degrees implemented at the Institute and elsewhere. Figure 1 outlines the following GEMS subsystems:

Subsystem	Application
SAFES	Information handling and data retrieval
AIMS	Instructional management
ULTRA	Educational guidance
IMIS	Educational administration and library management
PROMIS	Educational planning and evaluation
SIMULATION MODELS	Other models

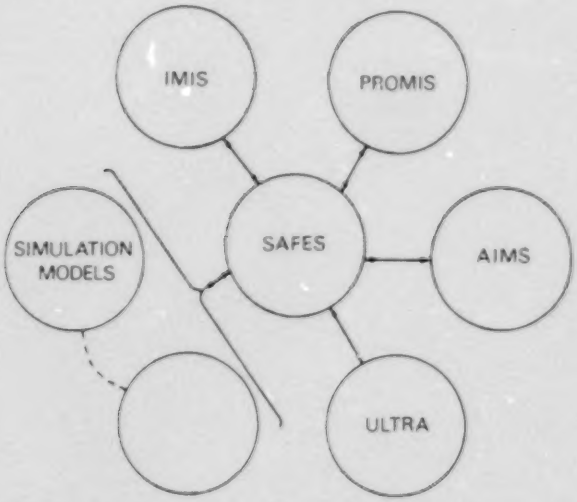


Figure 1. Outline of subsystems of the Generalized Educational Management System (GEMS).

System objectives. The system objectives of GEMS are designed to do the following:

1. Yield machine independence to the maximum possible extent (i.e., create a system that can be adapted to a wide variety of machine configurations)
2. Create, maintain, and access a large data base relevant to student curricular, pedagogical, and administrative aspects of a given scholastic environment
3. Create, maintain, and access subfiles containing meta data (data processed from the main data base, having high information content and low noise)
4. Provide printed analysis of past, current, and future student progress throughout the scholastic environment

5. Generate an adaptive feedback loop through which the system can modify its multiple-model simulator to reflect current conditions within its subfiles
6. Allow experimental modification of system parameters so as to forecast the probable outcome of contingent decisions
7. Provide a mechanism for an externally initiated investigation of the data bank for evaluation and experimentation
8. Provide general linkages for imput of modules into the system
9. Develop a mathematical skeleton of simulation mechanism
10. Employ one multiple-model simulator to generate pertinent information
11. Crystallize and incorporate foundations for time-shared and teleprocessed implementation.

The Sequential Access File Entry Subsystem. The Sequential Access File Entry Subsystem (SAFES) illustrated in Figure 2 embodies the file handler requisite. It provides an open-ended data storage and retrieval medium with multiple levels of indexing. This subsystem is self-allocating—that is, upon being provided with information relative to the nature of the input data, it will allocate the appropriate file spaces and indices. SAFES will create and maintain both direct access (disk) and sequential access (tape) files in any number and of any length as well as provide for all data transmission within the system. SAFES provides the communications and data environment in which each of the subsystems operates. Any number of simulation models can be driven by SAFES which supplies them with raw data as well as reduced data. When functioning in a large-scale, time-shared teleprocessing environment, SAFES will create and maintain files in any variety of storage media, monitor the usage of any file or subfile, reorganize any file or subfile to maintain maximum access efficiency, and make optimal use of physical storage media.

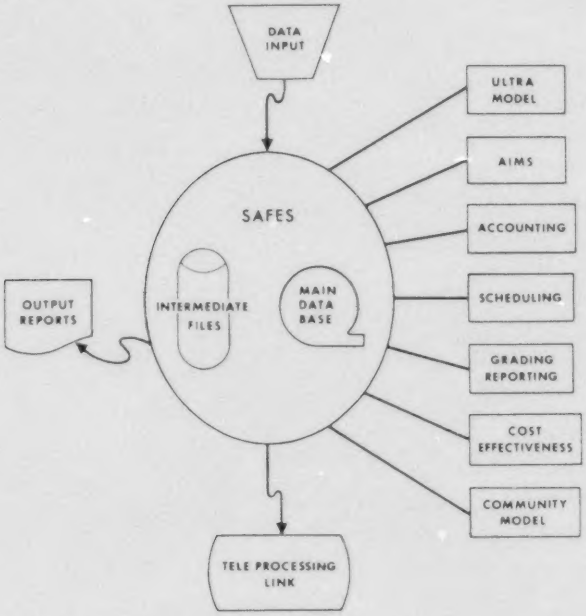


Figure 2. Design of the Sequential Access File Entry Subsystem (SAFES).

The Generalized Simulator. A generalized simulator, which in effect becomes a unique computer language, is used to develop models of a wide range of educational environments. The basic structure of a Generalized Educational Decision Simulator (GEDS) is presented in Figures 3 and 4. This structure is created and specified as educational process information is fed

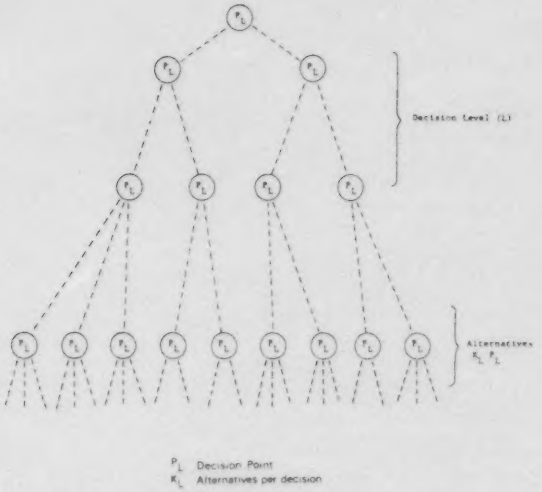


Figure 3. Basic structure of a Generalized Educational Decision Simulator (GEDS): Decision point structure.

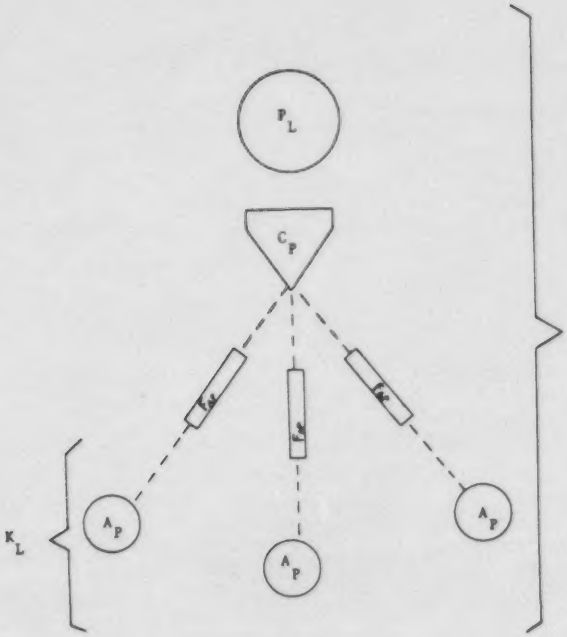
into the system. Upon specification, the simulator reduces to a model of an aspect of the educational environment. Fundamentally, the simulator is a variable decision structure, the lattice of which outlines the components (rational and alternative) of decision processes.

In keeping with the principle of modularity and flexibility, the decision structure is a tree configuration of x levels and y alternatives per decision. The criteria for each decision evolve from specific constraints of selected student history or performance parameters. These constraints may be absolute (i.e., numeric constants or ranges), algorithmic, or based on statistical probability levels relative to an analysis of class data. Such a device is comparatively rigid in that it cannot be easily modified to reflect changes in student data or course strategy. This problem is overcome by incorporating into each decision process a probabilistic weighting factor developed either intrinsically or by a student data analysis. As a result, the likelihood of a single path being chosen in a given decision process can be increased or decreased without reprogramming. The simulator is highly flexible and capable of being adapted quite easily to a changing educational environment.

The feedback mechanism provides the device for accomplishing this adaptation, using mathematical pattern recognition as its basis. In essence, the process consists of analyzing the student data bank with the object of detecting and classifying patterns of academic behavior. Once these patterns are known, categories are established by specifying constant relationship between student parameters. An individual student is then evaluated by comparison with each category until the most appropriate category is selected and a metric conformity is determined. Such a device, which becomes more certain as the number of categories and the population in each increases, is used to drive a reporting subsystem and to manipulate the weighting factors in the simulator. Hence, a truly modifiable system capable of improving with experience is generated. Due to the open-ended nature of the file and the ability of the system to access all available data, the experience of time is ever cumulative and can be duplicated at will.

The Automated Instructional Management System. In its simplest and most elementary form, the systems analysis approach at NYIT which constituted the initial phase of structure of the Automated Instructional Management System (AIMS) consisted of three carefully specified sets of conditions:

1. The desired outcomes of objectives of the system
2. A detailed audit of the characteristics of the system and the system inputs before they are operated upon or affected by the system



P	Decision Point
C^L	Decision Criterion
F^P_{AP}	Probabilistic Weighting Factor
A^P	Decision Alternatives
L^P	Decision Level
K_L	Alternatives Per Decision

Figure 4. Basic structure of a Generalized Educational Decision Simulator (GEDS): Decision criteria structure.

3. An explicit description of relevant means-ends relationships and methods for assessing efficiency and/or efficacy (i.e., effective ways in which systems resources may be organized to provide pathways to desired objectives).

Next, the appropriate phases relating to instructional management required the development of specifications and/or modifications of the following terms and functions:

1. Goals (curriculum objectives expressed in behavioral terms delineating precisely the substance of the educational program, the skills and knowledge to be learned)
2. Students (as inputs to the system, with profile structure, academic levels, proficiency attainment, and all other relevant data relating to selection and subsequent education)
3. Curriculum, course, and instructional content (software and programs designed to accomplish specifications of [1] above)
4. Instructional strategies (combination of methods, media, and organization required to conduct the learning program)
5. Assessment, tests, and procedures for evaluation
6. Instructional decision making and prescriptions
7. Feedback and restructure mechanisms
8. Organization and facilities (personnel, facilities, faculty, and equipment required to support other subsystems).

The objectives of AIMS are to provide self-adapting mechanisms which will aid in the evaluation of student progress; provide for prescriptive measures for remedial or enrichment material; allow empirical validation and optimization of course organization, content, strategies, and media; provide a record-keeping and communication function for the pupil, teacher, and school; and provide continual feedback to improve functional effectiveness of the system.

In addition to the linkages to the data base, including all file maintenance functions (SAFES), AIMS consists of a report generation subsystem coupled to a heuristic simulator with an adaptive feedback element. The goal for this subsystem is to provide the pedagogue with a wide range of information-processing tools for the analysis and evaluation of student progress and curriculum.

Coupled to the file-handling capabilities of SAFES, AIMS includes supporting input-output options which allow it to do the following:

1. Perform and report item analyses of student test questions
2. Receive data on student performance and background as well as course structure
3. Provide for multiple formats for input data (i.e., without reprogramming, allowing the system to be adapted to a wide range of input formats)
4. Produce any number of selected output reports which tabulate data relative to an individual student performance profile, class performance profiles, and course validation
5. Permit the selection of students from the main data base whose parameters conform to certain specified constraints and perform any of twenty-five statistical operations on selected parameters of the selected students.

It is again emphasized that the design characteristics of SAFES permit it to be used as a general data manipulative device capable of providing an information environment in which any number of process simulators, of which AIMS is one, may effectively operate. This is the core concept of the accountability system.

The system specifications previously listed for the Generalized Educational Management System are likewise applicable to AIMS. The two items which follow are typical specifications representing needs in two other areas, pedagogy and behavioral psychology. They have been chosen from a range utilized in an application of AIMS at the United States Naval Academy in Annapolis.

1. Typical pedagogy specifications.
   a. Produce a listing of all students registered in the program; provide options at user choice so the listing can be arranged alphabetically, in the order of the student I.D. number, as a single list, or divided into the separate class section.
   b. Produce a complete listing of the answer matrices for all tests; include the MBO (Measurable Behavior Objective) reference and a brief description of the MBO; list the remedial prescription for each wrong answer by noting book number, page number, and problem number of the assignment.
   c. Produce an individual student test printout, in a format allowing the report to be given directly to the student after a test has been processed; include the identifying heading, the truth value of each answer choice, any remedial assignment, a personal message of encouragement or censure, and directions to report to the laboratory for a special remedial lesson, if necessary.
   d. Provide an individual student rating for homework as a total or recap of the number of A, B, C, D, and E ratings assigned to each of the homework problems over a period of time.
   e. Provide individual homework rating scores, student and section, number of A, B, C, D, and E grades issued to each student in each section for one particular homework assignment (where each letter is assigned a weight and the total score is converted to an average percentage).
   f. Format a student profile, giving a summary of all test scores and homework scores as well as the current average of each student in each section; provide update capacity after each entry so as to provide a running profile of each student's performance.
   g. Structure histograms (the frequency distribution bar graph that shows the number of students who received each of the test scores assigned) to summarize the total performance record on any individual test for rapid visual analysis of the entire student population.

h. Provide item analysis so as to maintain a record of the number of students who chose each of the answers that were presented in the multiple-choice format of the test, with flagging to indicate the areas that need investigation.

i. Provide parameter flagging, with output devised to assist the investigator in examining the item analysis; select certain parameters to determine answers chosen by more than 90% of the students, distractors chosen by 0% of the students, and distractors chosen by more than 25% of the students.

j. Determine final grade by variable selection of the computer-marked, multiple-choice objective test scores; homework grades; hand-graded tri-semester tests; and the final hand-graded examination mark—averaged and weighted to arrive at a term mark.

k. Calculate and list indices and deviations for the group and individual as follows:

Group	Individual
Capability index	Capability index
Performance index	Performance index
Performance deviation	Absolute performance deviation
Problem achievement	Relative performance deviation
Posttest achievement	Problem achievement
Net achievement	Posttest achievement
Achievement deviation	Net achievement
	Absolute achievement deviation
	Relative achievement deviation

l. List MBOs in each lesson to contain the following:
   (1) Each EO (Educational Objective) in the study guide which requires more than one trial selection to achieve the correct response
   (2) Each EO in the worksheet for which the criterion question is incorrectly answered
   (3) A remedial prescription for each of the items in (1) and (2) in the form of a reference to three standard textbooks and the pages where the material contained in the EO may be found
   (4) Each TO (Test Objective) which is not satisfactorily met in the posttest
   (5) A remedial prescription for each TO, as prescribed above.

m. Provide a congratulatory message and an optional assignment of enrichment material in the form of textbook readings, advanced films and/or advanced audiotapes for those students who attain relative performance and relative achievement indices of +20 or more.

n. Provide, for those students who attain a relative achievement index of +30 or more, a congratulatory message, an optional assignment as indicated above, and a statement that they have attained tutorial status and may be assigned to assist other students in the group.

o. Provide an item analysis, based on study-guide and worksheet performance of the group, which enables the instructor to organize the group multiple-media instruction (GMI) session for the week.

p. Provide an item analysis, based on homework problems and posttest, which further contributes to instructional decisions for the GMI session.

q. Structure skill category analysis for each student which enables the instructor to select specific weaknesses to be attacked by tutorial assistance.

r. Provide a media category analysis for each student which enables the course designer as well as the instructor to select remedial media and enrichment media for individual student use.

s. Divide each group into quartiles based on net achievement in each lesson.

t. Display the percentage of students in each quartile with the following characteristics:
   (1) Needed more than one try to arrive at the correct answer to each study-guide criterion check
   (2) Answered each worksheet question incorrectly
   (3) Received A, B, C, D, or E on each homework problem set
   (4) Answered each posttest question incorrectly.

u. Display the percentage of students in each quartile who scored well or poorly on questions dealing with each of the four media categories.

v. Display the percentage of each of the skill levels correctly handled by the students in each quartile.

2. Typical behavioral psychology specifications.
   a. Produce a matrix which shows the relationship between TO, EO, learning or skill category, media type, and each individual question.
   b. Provide for selection and/or extraction of students into experimental groups based on characteristics reflected in their data.
   c. Provide a management system capability for at least 1,200 students.
   d. Provide for the maintenance of a student background data file which includes (1) past academic history, (2) student interest profile, (3) aptitude profile (SAT scores, achievement scores, and reading level).
   e. Provide for collection of student timing information.
   f. Allow information input from (1) midterm exam, (2) final exam, (3) topic or lesson, (4) pretest, (5) posttest, and (6) monitor of classroom performance (or analogy).
   g. Provide capability to perform the following statistical analyses on selected groups of students:
      (1) Analysis of Variance
      (2) Item Analysis
      (3) Kuder-Richardson Analysis
      (4) Correlation of Widespread Classes
      (5) T-Test of Means and Differences
      (6) Linear Regression Analysis
      (7) Pearson and Rank Correlation
      (8) Covariance Analysis
      (9) Multiple Regression Analysis
   h. Develop a mathematical basis for an empirical simulation model for student guidance and forecasting.

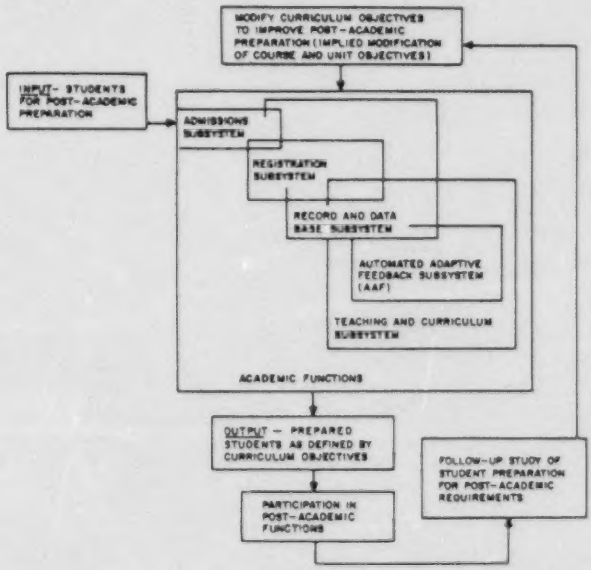

MODIFY CURRICULUM OBJECTIVES TO IMPROVE POST-ACADEMIC PREPARATION (IMPLIED MODIFICATION OF COURSE AND UNIT OBJECTIVES)
INPUT- STUDENTS FOR POST-ACADEMIC PREPARATION
ADMISSIONS SUBSYSTEM
REGISTRATION SUBSYSTEM
RECORD AND DATA BASE SUBSYSTEM
AUTOMATED ADAPTIVE FEEDBACK SUBSYSTEM (AAF)
TEACHING AND CURRICULUM SUBSYSTEM
ACADEMIC FUNCTIONS
OUTPUT - PREPARED STUDENTS AS DEFINED BY CURRICULUM OBJECTIVES
PARTICIPATION IN POST-ACADEMIC FUNCTIONS
FOLLOW-UP STUDY OF STUDENT PREPARATION FOR POST-ACADEMIC REQUIREMENTS

Figure 5. Essential requirements of an educational environment.

Additional Evaluative System Characteristics. The simplified schema of Figure 5 indicates essential requirements of an educational environment. Basically, we begin with students to be educated; we then structure varied environmental arrangements to prepare

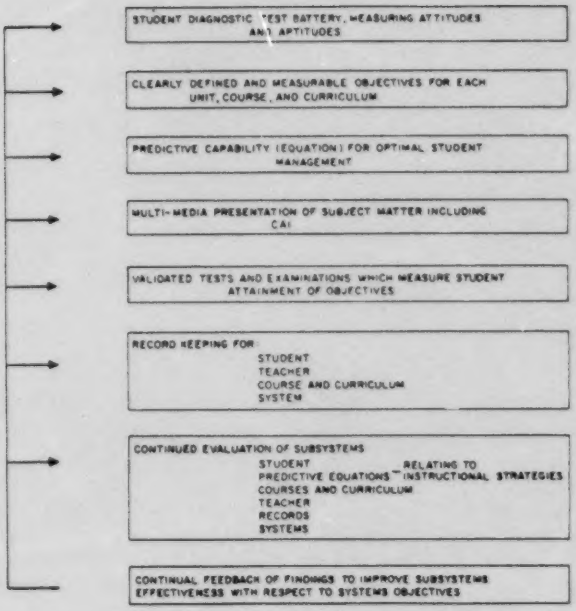

STUDENT DIAGNOSTIC TEST BATTERY, MEASURING ATTITUDES AND APTITUDES
CLEARLY DEFINED AND MEASURABLE OBJECTIVES FOR EACH UNIT, COURSE, AND CURRICULUM
PREDICTIVE CAPABILITY (EQUATION) FOR OPTIMAL STUDENT MANAGEMENT
MULTI-MEDIA PRESENTATION OF SUBJECT MATTER INCLUDING CAI
VALIDATED TESTS AND EXAMINATIONS WHICH MEASURE STUDENT ATTAINMENT OF OBJECTIVES
RECORD KEEPING FOR:
STUDENT
TEACHER
COURSE AND CURRICULUM
SYSTEM
CONTINUED EVALUATION OF SUBSYSTEMS
STUDENT
PREDICTIVE EQUATIONS
COURSES AND CURRICULUM
TEACHER
RECORDS
SYSTEMS
RELATING TO INSTRUCTIONAL STRATEGIES
CONTINUAL FEEDBACK OF FINDINGS TO IMPROVE SUBSYSTEMS EFFECTIVENESS WITH RESPECT TO SYSTEMS OBJECTIVES

Figure 6. Salient elements of the Adaptive Feedback System.

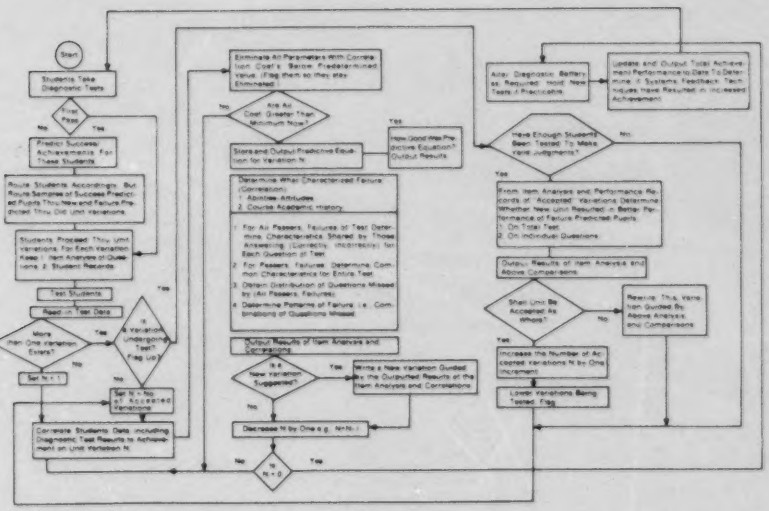

Start
Students Take Diagnostic Tests
Trial Pass
Predict Success/Achievements For These Students
Route Students Accordingly. But Route Samples of Success Predicted Pupils Thru New and Failure Predicted Thru Old Unit Variations
Students Proceed Thru Unit Variations For Each Variation Keep: 1. Item Analyses of Questions, 2. Student Records
Test Students
Read in Test Data
More Than One Variation Exists?
Is Variation Undergoing Test? Flag Last
Set N = 1
Set N = No. of Accepted Variations
Correlate Students Data, including Diagnostic Test Results to Achievement on Unit Variation N
Eliminate All Parameters With Correlation Coef's Below Predetermined Value. (Flag them so they stay Eliminated)
Are All Coef. Greater Than Minimum Now?
Store and Output Predictive Equation for Variation N
How Good Was Predictive Equation? Output Results
Determine What Characterized Failure (Correlation) to
1. Abilities Attitudes
2. Course Academic History
1. For All Passers, Failures at Test Determine Characteristics Shared by Those Answering (Correctly, Incorrectly) for Each Question of Test
2. For Passers, Failures, Determine Common Characteristics for Entire Test
3. Obtain Distribution of Questions Missed by (All Passers, Failures)
4. Determine Patterns of Failure, i.e. Combinations of Questions Missed
Output Results of Item Analysis and Correlations
Is a New Variation Suggested?
Write a New Variation Guided by the Outputted Results of the Item Analysis and Correlations
Decrease N by One e.g. N=N-1
Is N = 0
Allow Diagnostic Battery as Required. Hold New Tests for Precisions
Update and Output Total Achievement Performance to Date To Determine if Systems Feedback Techniques Have Resulted in Increased Achievement
Have Enough Students Been Tested To Make Valid Judgments?
From Item Analyses and Performance Records of "Accepted" Variations Determine Whether New Unit Resulted in Better Performance of Failure Predicted Pupils.
1. On Total Test
2. On Individual Questions
Output Results of Item Analysis and Above Comparisons
Shall Unit Be Accepted As Whole?
Reverse This Variation Guided By Above Analyses and Comparisons
Increase the Number of Accepted Variations N by One Increment
Lower Variations Being Tested, Flag

Figure 7. A component of the Automated Adaptive Feedback System applied to a course.

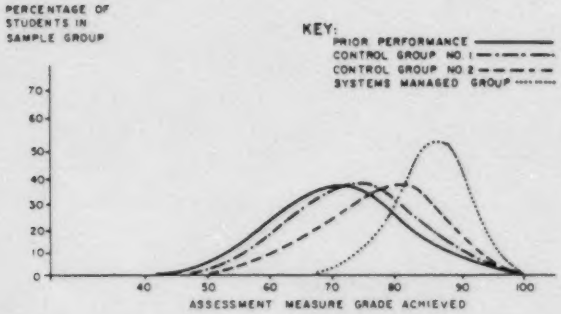


Figure 8. Example of the use, as a principal criterion for measurement of effectiveness, of the upward shifting of the "normal" achievement curve, plotted against delineated objective measures, for successive offerings of a program.

students to function successfully in postacademic situations; and finally, we evaluate successes and failures, with varied criteria, to see what modifications are necessary for the totality being examined. As an example, evaluators of technical programs are concerned with the ability of graduates to be accepted, function, adjust, and progress in the industries or society offering opportunities for which they have been prepared by the educational environment. All the elements encompassed within the environment—pupils, facilities, teachers, courses, resources, and other relevant factors—are adjusted when the total process does not yield the broad objectives set for the educational system under scrutiny. Thus, if an automotive technology program fails to produce industry acceptance or retention for the majority of its students, the entire program, not just a single component, will be scrutinized.

Figure 6 shows salient elements of the Adaptive Feedback System, and Figure 7 represents a component of the Automated Adaptive Feedback System applied to a course. Again, it is emphasized that the criteria for measurement of effectiveness are those selected by the users. One user might select as a principal criterion the upward shifting of the "normal" achievement curve, plotted against delineated objective measures, for successive offerings of a program (Figure 8). Another might select as the principal criterion reduction of student attrition by curriculum modification. (It has been alleged that 10% of course content has been responsible for 90% of attrition and failure in certain occupationally related skill areas in some military training centers.)

The impact of important elements affecting educational systems is sometimes underemphasized or unstudied, possibly because of its complexity. Educators require a system provision to yield meaningful information which will assist in decision making in stressed political situations. The usual inadequacy of information for this critical function is an important reason for the reluctance of individuals and communities to stand accountable for their programs. A

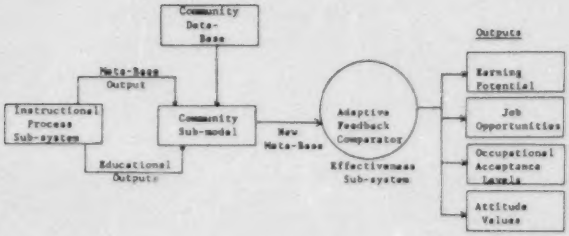


Figure 9. Simulation model of the communities concerned, with computer analysis techniques equivalent to the voter profile approaches which characterize election forecasting.

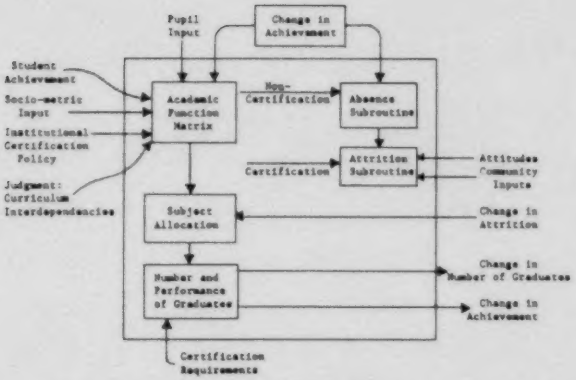


Figure 10. An example (No. 1) of the interrelationship of the model in Figure 9 to instructional process subsystems, giving further evaluation approaches to given educational situations.

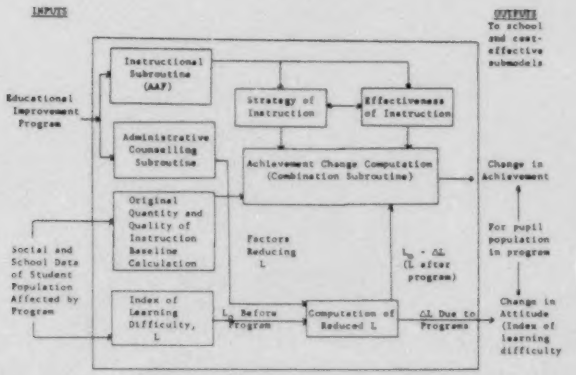

INPUTS
OUTPUTS
To school and cost-effective submodels
Instructional Subroutine (AAF)
Educational Improvement Program
Strategy of Instruction
Effectiveness of Instruction
Administrative Counselling Subroutine
Achievement Change Computation (Combination Subroutine)
Change in Achievement
Original Quantity and Quality of Instruction Baseline Calculation
Factors Reducing L
For pupil population in program
Social and School Data of Student Population Affected by Program
Index of Learning Difficulty, L
Computation of Reduced L
Change in Attitude (Index of learning difficulty

Figure 11. An example (No. 2) of the interrelationship of the model in Figure 9 to instructional process subsystems, giving further evaluation approaches to given educational situations.

potential simulation model of the communities concerned, with computer analysis techniques equivalent to the voter profile approaches which characterize election forecasting, is shown in Figure 9. The interrelationship to instructional process subsystems is amplified in Figures 10 and 11, which illustrate further evaluation approaches to given educational situations.

The purpose of each component described is to produce those quantifiable measures, individual or composite, which determine the effectiveness of the instructional system. While different system users may weigh the information produced in terms of their own priorities, the baselines produced will always be quantitative and specific.

The Guidance Model. The guidance model, ULTRA, illustrates further the accountability system as it operates at NYIT. (See Figure 12.) ULTRA, occupationally oriented at NYIT, is a model which can be applied to the guidance and control of a student through any educational environment. Operating within a central information system such as SAFES, enough flexibility exists to allow ULTRA to provide basic guidance information as well as supervised management of students involved in elementary, secondary, and collegiate education. The purpose of ULTRA is to provide all students the education (environment, courses, and curriculum) which will qualify

them for the career objectives selected by their individual interests and potential abilities—as diagnosed, discussed, predicted, and interpreted by the combined attributes of man-made examination, computer-oriented methodologies, man-machine interpretations, and final human decision-making approval.

ULTRA has, as one of its fundamental objectives, the organization of pathways by means of which each student may expect a high probability of realizing the predicted match of individual potential with occupational, scholastic, and curricular opportunities available. The resulting procedures can guide those concerned with the learning process through the major steps of optimized educational decision making with respect to occupational guidance. ULTRA permits varied routes for either student guidance assignment or achievement of desired educational results. The computer, when used in a guidance-management process, focuses on such factors as these:

1. Desired end-point job skills, in terms of student performance, which the training is to bring about
2. Prerequisite entry-level skills
3. Detailed task analyses which stipulate testing measures to verify performance
4. Predictive measures to develop criteria of performance coupled to recommendations for the kinds of instruction, strategies, and guidance which will best overcome each learner deficiency
5. Cost-effectiveness measures to provide a means of evaluating "success" in terms of dollar costs, pupil time expenditures, or other pertinent criteria
6. Capacity to provide information sufficient to operate a complete manpower system encompassing the school and community resources.

As part of ULTRA, the computer serves researchers as an aid in the creation of individually oriented programs for students who desire technical careers, including those whose success in conventional programs is questionable. Students in ULTRA are admitted, interviewed, and tested. The resulting data are sent to a computerized information center where a personal profile is constructed for each student. The profile encompasses records of ability, skills, and knowledge as well as a prediction of the student's performance. Guidance counselors design a student's individual program on the basis of the profile, interview, and computer recommendations.

Students with immediate capacity for college work are enrolled in programs leading to the two-year associate or four-year bachelor's degree in various specialized technical fields. Others are referred to a diagnostic center where they undergo further examination. On the basis of test results, they enter two- or four-year programs combining regular courses and remedial studies to overcome academic weakness. Students with marked deficiencies are enrolled in an intensive precollege program prior to the pursuit of college-level courses. Those unable to undertake college work are placed in an "alternative skills" program which combines jobs in cooperating industries with off-campus studies. The alternative skills program enables future transfer to college-level academics.

One paramount aspect of Project ULTRA is the continuous assessment of individual progress. Test scores, learning rates, and acquired skills are constantly recorded and fed back to the teaching staff by the computer. An instructor need not wait until the conventional midterm or final examination for an overview of student progress. Such intensive assessments allow staff members to refine predictive techniques and alter a student's curriculum where necessary. For example, a work-study student may be transferred to college and advanced training; a student with a poor chance for success in a given program may be channeled into a program where success is more probable. Project ULTRA retains face-to-face counseling; it has, in addition, demonstrated that computers can keep guidance and evaluative requirements for a diversified student body within feasible economic bounds.

The Institutional Management Information System. The Institutional Management Information System (IMIS), another of the GEM subsystems, performs the function of central administration and library management on an institutional level. The institution may be defined as an elementary or secondary school, a vocational institution, a school district, a small college, a university, or even a statewide educational network. This diversity of application is attributable to the principle of modularity and the innate flexibility of SAFES. Program modules having varied functions can be inserted into or extracted from the system without affecting the integrity of the

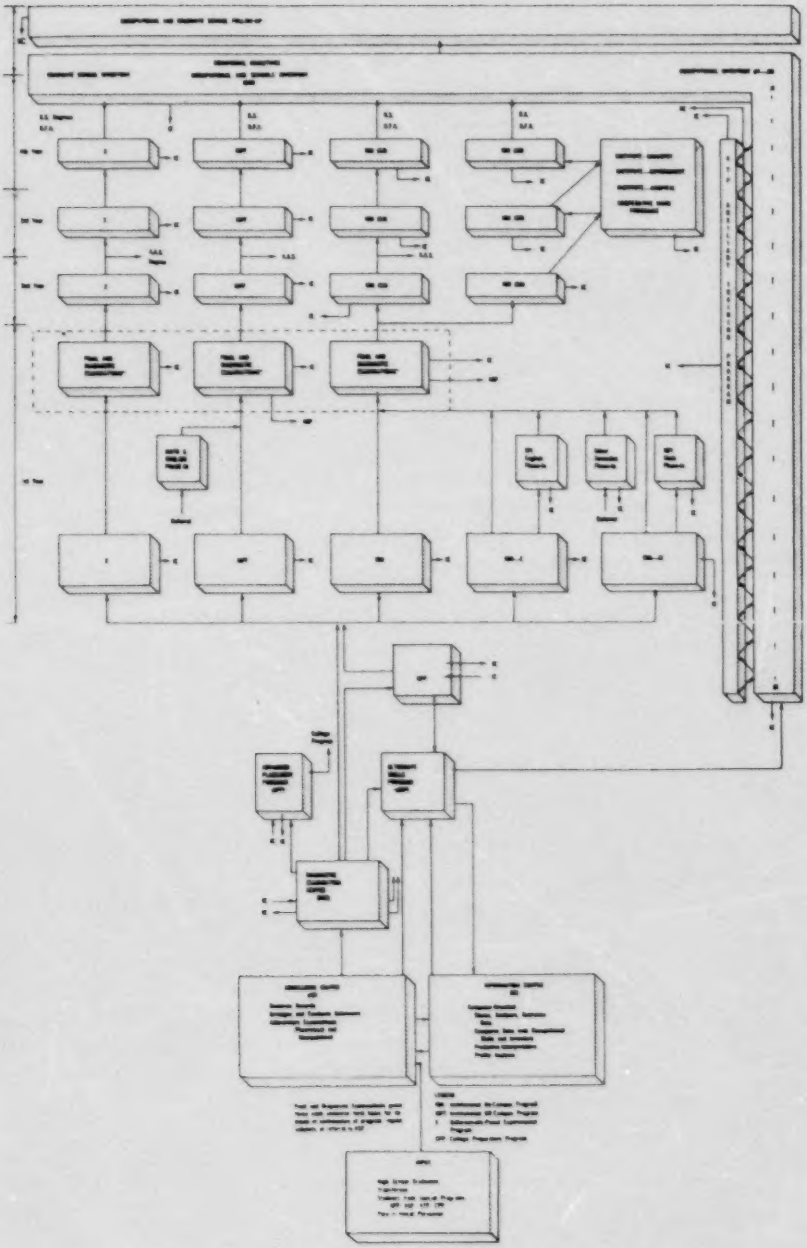


Figure 12. ULTRA: A schematic outline of the overall concept.

totality. SAFES will then modify the data environment to accommodate the new function. Within the province of central administration are the functions of grade reporting, admissions, registration, scheduling, student accounting, plant and equipment maintenance, inventory control, payroll, general accounting, and purchasing as well as the library functions of cataloguing, circulation control, and information retrieval.

The Program Management Information System. In addition to the administrative system operative under GEMS, a number of simulation devices can be used in augmenting the system to provide management information in specific areas. One such simulation device developed by the Advanced Systems Group is the Program Management Information System (PROMIS). PROMIS is a planning, programming, and budgeting simulator designed to provide information on the cost of projected implementation of educational programs. In addition, when provided with allowable variations in program elements, it will produce a range of optimal and suboptimal program implementations based solely on cost analysis. Although the system is capable of accepting a wide range of information, the greatest information yield is attained when a modified PERT input is provided. This system can be applied to generate cost projections and optimum implementation patterns for a wide variety of programs. Examples might include the analysis of a model elementary teacher-training program or of a projected curriculum change involving new or reallocated teaching staff, with consequent impact upon facilities, building, and space allocation proposals.

Conclusion

It has been the intent here to describe the philosophy and initial application of an accountability system which can aid in coping with the problems of our occupationally related schools.

The very nature of educational effectiveness is complex and goes beyond simple indices such as the relationship of cost to productive output. The problems confronting researchers who are attempting to quantify and measure the intangible qualities of education are formidable but not insurmountable.

All relevant questions relating to accountability cannot be answered by any single model. Any model is only an abstraction of selected factors and characteristics of an environment, embodying a stated opinion as to probable relationships. Yet the process has validity, for the model, be it good or bad, is a tangible structure capable of being tested. Its closeness to the world of reality can usually be precisely determined. When it operates well, it forecasts probable occurrences accurately; when it fails, it can be modified, retested, and reevaluated. Empirically, the pattern can be repeated until a basis exists wherein the effectiveness of change in any of the model's components can be evaluated against the indicators important to the model's use.

The just-published *Informational Technology and Its Impact on American Education* (Congress of the United States, Office of Technology Assessment, 1983) draws two basic sets of conclusions:

1. The so-called information revolution, driven by rapid advances in communication and computer technology, is profoundly affecting American education. It is changing the nature of what needs to be learned, who needs to learn it, who will provide it, and how it will be provided and paid for.
2. Information technology potentially can improve and enrich the educational services that traditional educational institutions provide, distribute education and training into new environments such as the home and office, reach new clients such as handicapped or homebound persons, and teach job-related technological skills.

The first premise is obviously happening, and meaningful success—nationally and globally—of the second lies in your hands. Your research will affect the capacity of the educational providers to meet their changing mission.

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Footnote

1. The figures (1–12) used in this section were previously printed as part of an article entitled "An Accountability and Evaluation Design for Occupational Education," by Alexander Schure, *Educational Technology*, March 1971, *11* (3), 26–37. Copyright 1971 by *Educational Technology*. Used with permission.

THE STATE OF THE ASSOCIATION AND THE INSTITUTIONAL RESEARCH PROFESSION

William F. Lasher
President, The Association for Institutional Research

Note: The following is an edited version of the Presidential Address delivered on Monday evening.

The topic of this address is the state of the association and the institutional research profession. It is difficult to talk about one of these areas without talking about the other. Our profession is devoted to data collection, analysis, reporting, and related staff work designed to facilitate operations and decision making within our institutions. The major purposes of the Association for Institutional Research (AIR), on the other hand, are to benefit, assist, and advance these activities to improve the understanding, planning, and operation of our institutions.

However, we can separate these areas for discussion purposes, and I propose to do just that. I would like to take just a few minutes to give you my evaluation of the current condition of the Association and to explore with you where institutional research is as a profession and where it is headed.

The State of the Association

In my judgment, as president of AIR and as a member of the Executive Committee for five of the last six years, the state of AIR in 1983 is quite good.

1. *Financially*, we are sound. We ended 1981–82 with a higher fund balance than we had in 1980–81. Although we continue to manage the transition after the fiscal- and member-year changes begun two years ago, one result of these changes is clear: the Association's cash flow has improved dramatically. We are now able to do better short-term financial planning, and the result of our improved cash management is reflected in higher interest income.
2. In the area of *membership*, the reviews are mixed. We currently have over 1600 members representing just under 1000 institutions from Canada, the United States, and twenty-four other countries. However, our total membership is at its lowest point since 1978. The unusual seventeen-month length of the 1981–82 membership year and the confusion surrounding renewals for 1982–83 no doubt account for some of this. Nevertheless, the fundamental point remains—membership is down and we must do something about that. The Executive Committee has discussed this problem thoroughly and has been proceeding cautiously. In my judgment, this has been the proper approach. During this year of transition, we have been developing new membership benchmarks, and we were not certain until recently if, in fact, there was a problem or what its magnitude was. However, the time for action is at hand.

   I recommend that the 1983–84 Executive Committee develop and implement a program to increase membership. I suspect that much will be said during this Forum about individuals at our institutions who are actually doing institutional research, but who either don't identify their activities as such, or don't know that what they are doing *is* actually institutional research. These professionals would benefit from being members of AIR, attending our meetings, and reading our publications. These are the people we should recruit as members.
3. In the area of *nominations*, I think we can point with pride to the system we use and the results it produces. As I have looked at our ballot over the last several years, I have thought, "No matter who wins this election, the Association wins, because they are all highly competent individuals." I *do not* mean to imply that it is not important for us to participate in our elections. The people we elect make many decisions on our behalf concerning AIR business. It is vital that we know who they are so we can go to them with suggestions or criticisms concerning association affairs. What I *do* mean is that we have very good people

in this association, and for the most part they are willing to serve. We continue to be able to identify these people and benefit from their talents.

4. The *Forum* has consistently been our single most important event each year. Whether we continue to have the reputation of presenting one of the best professional programs in higher education will depend on how well we identify topics of relevance and interest, and how well we perform as presenters.

   In my opinion, Forum planning, especially involving the program, has become much more efficient in recent years. As you may recall, we changed the structure of Forum responsibility a few years ago. Prior to that time, the vice president was also Forum chair. Immediately following the election, the vice president-elect was confronted with the massive task of planning the next Forum. I always wanted to do a blood pressure check on those people as they learned of the enormity of their task. Anyway, we changed that and added the positions of Forum chair and associate Forum chair to the Executive Committee. The idea was that a person would be elected associate Forum chair to help plan one Forum and then succeed to the position of Forum chair and assume full responsibility for the next. In my judgment, this change has worked beautifully. The Toronto Forum is the third one for which the Forum chair has had essentially two years to prepare. Work on the Fort Worth Forum has already begun.

   Nevertheless, there are *still* areas of Forum planning which we need to improve. Site selection and hotel contract negotiations are areas which we have always done ourselves. Essentially, new people have been involved with this function for each Forum. However, these are very important areas and are no place for inexperience. Unfortunately, very few of our members have developed the expertise necessary to work in them. In response to this problem, the Executive Committee has approved revised procedures for site selection. We have also been exploring ways to improve the consistency and professional character of our hotel negotiations. These deliberations should be continued so that the best possible Forum sites and hotel accommodations are made available to our members at the lowest possible cost.

5. Turning to other *professional development* activities, I think we have continued to make progress. Several pre-Forum professional development opportunities (PDOs) and workshops are being offered at this Forum.

   This year, the Professional Development Services Board also purchased general management courses in cassette and workbook form. These courses are designed for more general management development in a self-paced format. They are available for rental from the Executive Office in Tallahassee.

   In my opinion, however, we have just begun to mount a comprehensive program of professional development offerings. Portable curricular materials similar to the general management packages need to be developed on topics specifically related to institutional research. More PDOs and workshops need to be developed and made available to our regional groups for their meetings throughout the year. Finally, we need to push harder toward the goal of making this professional development program financially self-sustaining.

6. *Publications* constituted our original area of professional development. The AIR-sponsored journal, *Research in Higher Education*, and our sponsored sourcebook, *New Directions for Institutional Research*, continue to be published. The *Professional File* also continues, and I should note that the first sixteen issues of this series will be republished as a bound volume.

   Unfortunately, the current yearbook, *AIR 1982–83*, was not available until May. The Executive Committee and Publications Board felt that this late arrival significantly reduced the utility of this publication—especially the directory and governance sections. Therefore, the publication schedule has been revised so that this document will be available in a more timely fashion. The 1983–84 version, containing the proceedings from the Toronto Forum and a directory update, will be published in the early fall of 1983.

   In addition, a Best Paper Award has been established as a companion to the Suslow Award. It will be given annually for the best Forum contributed paper. The Suslow Award will continue to be reserved for publications by members which make "original and significant" contributions to the profession, but it will no longer be restricted just to Forum papers.

7. A little earlier I made a passing reference to regional groups. In my opinion, these and other groups associated with AIR are more important now than ever before. One only needs to compare increasing travel costs with decreasing travel budgets at many of our institutions to

understand what I mean. To many of our members, the *associated groups* provide the main opportunity for professional development. To many of our *newer* members, these groups provide the *first* opportunity to make professional presentations about analytical findings and/or new institutional research techniques.

Because of their importance, the Association's programs for affiliation and financial support for these groups should continue. I have long believed that the speaker's travel grants (for which these groups can apply to help defray their meeting costs) are important. However, I wonder whether we are helping the right groups. We tend to help those that are fairly well organized rather than those that are just forming. In any event, this grant program is being reevaluated to determine its effectiveness.

8. In the *international* area, AIR has long attempted to develop a network of persons outside North America who are interested in institutional research. This effort has been successful generally, especially in Europe. Nevertheless, I feel that we have some decisions to make concerning the fundamental orientation of our international role. Should AIR become truly international in scope and be a "worldwide umbrella organization?" Or, alternatively, should we encourage the development of AIR-like organizations in other countries and form a loosely allied federation? Although in our hearts we may wish for the first alternative, distance, language, and cultural differences may move us toward the second. Fortunately, this is one of the questions that the ad hoc Commission to Reassess the Purposes and Objectives of AIR is studying.
9. Two years ago, the *Higher Education Articulation Committee* (HEAC) was established to investigate closer cooperation with other professional organizations similar to AIR. While there appears to be little interest in combined meetings or central office functions, we should continue to work towards greater cooperation with these groups, especially in areas such as special publication projects, jointly sponsored regional workshops, and special interest group meetings at annual conferences.

   The second function of HEAC was in the area of policy analysis and federal data requirements. I must admit a sense of frustration in this area. In my opinion, AIR should raise its voice in Washington concerning the impact of federal data requirements on our U.S. institutions much more than it does. But the long-standing character of this association is that it is a collection of individuals who speak for themselves—so who can speak for the Association? In addition, we are an international association and, as the argument goes, the higher education issues which are controversial in Washington cannot be treated as being more important than those which are controversial in Ottawa, Stockholm, or Canberra. All of this is true, but it seems to me that a professional organization, whose members have such an important stake in their institution's responses to the information requests made by their national education agencies, should be able to devise better mechanisms to bring its expertise to bear on these issues. This should be true no matter what country is involved. Fortunately, once again this is one of the questions being addressed by the Commission.

   The work of HEAC is now essentially complete. Its interorganizational functions can be carried out better by AIR officers, the Publications Board, the Professional Development Services Board, and the Associated Groups Committee. Its policy analysis function should be debated further by the Commission and the Executive Committee, but should become the responsibility of the president.
10. Now to the Commission itself. As you know, during the past year, I established the ad hoc *Commission to Reassess the Purposes and Objectives of AIR*. It was established, with the approval and concurrence of the Executive Committee, to help us determine whether the purposes of the Association are still timely and relevant, given the current changing environment of higher education. The Commission was asked if the Association's purposes should be changed and, if so, in what way. We asked if steps should be taken for AIR to become more visible to those who are doing institutional research in our institutions but who don't think of themselves as institutional researchers. We asked if AIR should change its name and, if so, to what. And finally, we asked what the role of institutional research should be in the 1980s and 1990s.

    The Commission members include Donald J. Reichard, chairman, from the University of North Carolina at Greensboro, Frank S. Black from Murray State University, John S. Chase from the University of British Columbia, James W. Firnberg from Louisiana State University, Robert F. Grose from Amherst College, Stephen R. Hample from Montana State

University, Richard B. Heydinger from the University of Minnesota, Paul Jedamus from the University of Colorado, Lois E. Torrence from the University of Connecticut, Robert A. Wallhaus from the Illinois Board of Higher Education, Janis H. Weiss from North Hennepin Community College, and Robert Winter from Florida International University.

The State of the Profession

In keeping with the work of the Commission, I would like to provide my own view of the state of the institutional research profession and where it is going.

Nearly twenty years ago, in their classic, *The Managerial Revolution in Higher Education*, Francis Rourke and Glenn Brooks (1966, p. 144) stated that institutional research was "... at the heart of the trend toward the use of modern management techniques in higher education." However, we institutional researchers have disagreed about whether or not this trend should occur. We have long argued about whether institutional research should be oriented toward the theoretical study of higher education or be associated with administration, providing support for policy and decision making. The more traditional view, represented originally by Nevitt Sanford, argues that institutional research should focus on academic and instructional issues. This approach emphasizes theoretical studies of such matters as the internal dynamics of colleges and universities, the effectiveness of an institution's academic program, and the impact of higher education on students. On the other hand, the late John Dale Russell, whom we acknowledge as one of the original institutional researchers, stressed that institutional research should focus more on administrative analysis and should support decisions concerning institutional policy and planning.

The Russell model has, in recent years at least, been the predominant one. In many of our institutions, studies of educational effectiveness are left to educational psychologists, learning theorists, and other interested scholars. More general analyses of higher education organizations and their environments are left to faculty members in academic departments and/or research centers for the study of higher education.

In my opinion, the emphasis on administrative analysis (that is, the Russell model) is appropriate. Institutional research professionals *should* spend their time in support of decision making, policy making, and planning. However, as soon as one accepts this notion, the very nature of data, decision making and planning forces one to deal with such issues as the creation of information, the context of its use, and the political nature of higher education organizations and their environment.

Data vs. information. The primary activity of institutional researchers should be the transformation of data into information. Conceptually, there are some very important differences between data and information. A good explanation of these differences is provided by Dennis Jones (1982), our colleague from NCHEMS, in his book, *Data and Information for Executive Decisions in Higher Education*. According to Jones:

> Data are either quantities or codes that result from observation or measurement. Quantities are things like the number of students enrolled or the number of volumes in the library. Codes ... are numbers that identify certain characteristics such as the race, sex, or program level of students. Data are the raw facts from which information can be developed. The quality of data is determined by their validity, their accuracy, and their reliability.
>
> Information ... consists of data that have been combined and given a form in which they convey some useful knowledge to a recipient user. Information is created when data are selected, organized, and analytically manipulated, such that the result is in a form that informs the user and serves his or her needs. The quality of information is determined by its relevance to the concerns of the intended user, its timeliness, and its acceptability to the user. (p. 7)

In other words, we institutional researchers provide our most essential service when we transform data into information which is relevant to the concerns of whoever is to use it and provide that information to the user in a timely fashion. The emphasis must be on the use of the information and the context of that use.

Data in their raw form are probably apolitical, but they are not very useful. However, as data are acted upon through selection, organization, or analysis, they become politicized in two ways. First, the very process of selection and organization of data involves many human judgments by the information specialist. In other words, the analysis which an institutional researcher performs

is itself a political act. That individual's understanding of the intended use of the information, personal beliefs concerning the issue under consideration, and outlook for the institution are just three areas that could affect the analysis and, perhaps ultimately, the decision in which the information is to be used.

The second factor is that information is always subject to more than one interpretation. For example, information specialists generate and interpret information within their own frames of reference. Users receive that information and use it within their frames of reference. However, other individuals may subsequently use the same information based on their viewpoints, and possibly outside the context in which the information was originally intended. This subsequent use does not necessarily constitute misuse of information, but it can and often does.

These two outcomes of the transformation of data into information may explain why many institutional researchers prefer simply to transmit data and leave the analysis or interpretation to others. In my opinion, when they do this they are not doing good institutional research. Unless we provide timely and usable information, we will not be sufficiently involved in institutional policy making and planning. And this is really the core of the matter.

We *must* be involved in these central institutional processes—and our output *must* be used. These processes are often essentially information intensive, and institutional leaders should turn to us for our expertise. For example, virtually any institutional planning effort requires information on the institution's past, its present situation, its environment, and forecasts of its future condition. Because of the data and analysis at their disposal, institutional researchers can be among the most knowledgeable individuals on campus concerning the institution's future direction. In fact, it is difficult to see how legitimate planning can be done without the involvement of productive institutional researchers. But those who actually plan—that is, the institution's main decision makers—must have information in a timely and relevant manner. They need quality management information in order to decide the institution's future. Institutional researchers should fill this role, and I would argue that we *must* fill it.

Decision context. Jones' definition of information also requires that we understand the context within which information will be used. This means understanding the institution, knowing who the important players in the decision game are, understanding the kind of decision-making process involved, and being able to work with decision makers who have different personalities and administrative styles.

When I use the phrase "understanding the institution," I mean that we must have a full understanding of our institution's dominant governance and administrative style. This style depends on our institution's history, its external environment, its leadership and, fundamentally, its mission. Differences in these areas can lead to differences in the kind of institutional research we can do. For example, if the institution is a very bureaucratic one, the institutional research role may be to prepare routine reports and analyses based on operational data, or reports on the performance of units in meeting institutional goals and objectives. If, on the other hand, the institution is essentially a political anarchy, it may be more important that the institutional researcher operate as a catalyst, linking problems with decisions and outcomes rather than supplying quantitative information.

In a similar vein, it is very important that we understand the formal and informal processes by which different types of decisions are made in our institutions. We need to know what individuals, groups, or bodies are involved in different decisions. These are the "decision players" I referenced earlier. Are faculty always involved? Are only certain influential faculty members or deans involved? Does faculty legislation come through some university-wide constituent assembly to be approved or vetoed by the institutional president? Are the answers to these questions different if we are talking about budget matters, or curriculum matters, or facilities matters?

Likewise, we must understand the kind of decision-making process for which we are preparing information. Institutional researchers have traditionally assumed that their studies and analyses would be used as part of a rational process in which all decision alternatives are fully explored and thoroughly analyzed before a final decision is made. Most experienced institutional researchers can recall many periods of frustration because the rational model was not followed and their information was not used.

However, we must be more flexible. There are other models of decision making in use, and we need to be aware of them. Decisions are made within particular political contexts. We need to know the political context surrounding the decision for which we are providing information and

we must take into account the intended use of the information we are providing within that context. It may be to help make a decision; it may be to support a judgment already made; or it may be to provide the appearance of rational decision making.

It is also very important to take into account the personality characteristics and administrative style of the individual to whom we are providing the information. Some individuals are more oriented towards quantitative information than others. The last two presidents with whom I have worked are good examples: the first was not very quantitatively oriented at all. In fact, she did not trust anything coming out of a computer. My current president is very oriented towards quantitative information. Although some may think he is not always rational in his approach to decision making, he understands the use and potential political impact of information. Working with these two individuals has been very different. With the first, we had to deal with decisions as nonquantitatively as possible. With the second, the numbers must be there—properly justified, with tight, concise arguments.

In summary, there are significant conceptual differences between data and information. The need for information is a function not only of its use but of the characteristics and personality of the user and of the decision context within which the information will be used. The transformation of data into information that is both relevant to the decision context and communicates to the user is never a strictly mechanical or totally analytical task. Certainly, institutional researchers must be sophisticated about the data they are using and about appropriate analytical treatments, but they must also have the ability to understand the management problem, to appreciate the perspective from which the information user addresses the problem, and to identify and appropriately analyze the data and present it in a form that will best inform the user who is confronting the problem.

I realize that these notions are a far cry from traditional institutional research values which argue that institutional research should remain aloof from decision making. Unfortunately, such institutional research remains tangential to the main processes of an institution. The products of such research are received, seldom utilized, often relegated to a shelf to gather dust, or worse yet, discarded. In today's environment there is little room for functions, offices, or individuals whose outputs are peripheral to the main processes of institutions. On a campus where financial prospects are grim, if the products of the institutional research office are not being utilized, if the office is not valued or perceived as being productive, if the staff members are not in the main stream of the institution's policy-making and planning processes, a decision may very likely be made to use the resources which support that office in other ways. Unfortunately, such decisions *are* being made today.

Institutional research in the information society. And yet, if we view such decisions in the context of our society today, they are difficult to understand. Here we are with our expertise as information specialists living in a society being literally bombarded with information and information technology. For example:

- John Naisbitt (1982), in his bestseller *Megatrends*, tells us that we have moved from the Postindustrial Society into the Information Society.
- We are told that computers and high technology will be the backbone of this new societal phase.
- There is a constant parade of vendors on our campuses explaining the advantages of their particular personal computers, word processors, and decision-support systems.
- We are spending large sums of money on these machines and their software.
- *The Chronicle of Higher Education* (March 30, 1983, p. 1) (which, according to one of my faculty colleagues, has become the "*Wall Street Journal* of higher education") tells us that "Technology, the boom in microcomputers . . . is probably the single most important development affecting campuses today."
- We read that Carnegie Mellon University intends to equip every student, faculty member, and staff member with their own personal computer.

The information ball game, if you will, is changing right before our eyes. The new technology theoretically gives everyone access to the data they need. Those who are sophisticated enough can construct their own personal data bases which draw from external as well as institutional data resources and contain the data they find most useful for their purposes. They can do their own analyses. *Decision makers can do their own institutional research!* And if they can, where does that leave *us*? Where does that leave our profession? I submit that the answer to these

questions will be found in how well we, ourselves, adapt to this information society. I would hope we remember three things:

1. We are not alone. It is obvious that we do not have exclusive rights to the job of information analysis on our campuses. Other individuals are now involved. I referred earlier to the people who are doing institutional research but don't know it or don't identify their activities as such. We need to communicate with these people and become knowledgeable about what they are doing. Historically, little research was done on our institutions. On many campuses, it now seems that *everybody* is interested in analyzing the institution. The new technology will make this situation even more complicated. For the sake of our institutions and our profession, we need to keep ourselves informed about the activities of these people. On our campus, we have recently formed an informal institutional research council to foster this kind of communication. Representatives from the offices of institutional studies, budget, admissions, registrar, dean of students, measurement and evaluation, and administrative data processing are involved. Representatives from other offices may be invited in the future.
2. We don't need more data. Even though more and more people will have access to information technology and be able to process more data on their own, they may still not be able to use what they create. As we discussed earlier, data become information only in the context of use; if we understand that context and the characteristics of the user, our information and analyses will be useful. Otherwise, we shall all drown in a sea of data. These are fundamental points. Having more data is useless unless that data can be selected and translated into useful information.
3. We must each know our boss. Our relationships with the decision makers on campus will become even more important. Many will embrace the new technology. Some may not. As an example, there was an article recently in the *Wall Street Journal* (January 12, 1983, p. 1) about a few chief executive officers who have designed their own personal information systems which allow them to bypass the usual channels of information and discover almost instantaneously how their companies are doing. Staff members who had usually provided that information originally feared they would lose their influence and maybe even their jobs. However, the article went on to explain that the executives involved were a "particular breed"—very data oriented and easily frustrated if they could not get the desired information quickly and in their own prescribed form. Such executive systems are "not for everyone," it stated.

   Here again, the decision maker's personality is the key. Even if presidents or other decision makers are interested in doing their own analysis, they may not have sufficient time. In this case, they may ask the campus institutional researcher to assist them on special projects. If they do have the time to perform their own analysis, they may still need help in developing their personal data bases. The point is that not all campus executives will be able to develop a personal decision support system on their own. Many will need a chauffeur—and why not an institutional research chauffeur?

In fact, it is conceivable that the new technology will cause the relationship between the institutional researcher and the decision maker to return to what it was in an earlier time. *Megatrends* author John Naisbitt (1982, p. 39) argues that "whenever new technology is introduced into a society, there must be a counter-balancing human response—that is, high touch—or the technology is rejected." My "high tech/high touch" scenario for institutional research goes like this:

> Years ago, institutional researchers were very often presidential assistants who did special research projects for their bosses. (This structure is still in use today on many small campuses.) As time passed and the institutional researchers were asked to do more things—including carrying out institutional self-studies, developing data bases, meeting the massive accountability demands for compliance data, and developing forecasting and analytical techniques—centralized institutional research offices were developed with relatively large staffs.
>
> But now, with the new technology of personal computers and personal data bases, the institutional research function may become completely decentralized. The president may again have an assistant doing special analytical projects—but with significantly more advanced tools than in earlier times.

In any event, our profession faces a time of challenge and, I think, a time of change. Our own Bill Tetlow (1973, p. 150) wrote that the institutional research movement was an *idea* in the 1920s, was *conceived* in the '40s, *born* in the '50s, went through *infancy* in the early '60s, *childhood* in the late '60s, and reached *puberty* in the early '70s. I submit to you that we have come through *adolescence* and *early adulthood* and are now faced with the knowledge that, because of the technological revolution in which we are living, lots of other people can do what we say we can do.

How the profession of institutional research handles this mid-life crisis is up to each of us. We can move to new levels of professional expertise or we can fall by the wayside. Our journey will be exciting, for sure. I wish us all well.

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The Sidney Suslow Outstanding Forum Paper Award

In early May of 1977, Sidney Suslow, one of the founders of the Association for Institutional Research passed away. This gentle, inspiring human being had not only served as president of the Association, he had also continuously dedicated himself to the improvement of institutional research as a profession.

Nowhere in the tireless efforts of Sidney Suslow was his dedication, encouragement, and high standard of excellence for the profession better exemplified than in his contributions to the establishment of extensive and quality publications sponsored by the Association. He served as chairperson of the Publications Board and, until his death, served as editor of the quarterly monograph, *New Directions for Institutional Research*.

It was in recognition of this special member of the Association, and to perpetuate his concern for excellence in the profession and its publications, that the Publications Board recommended, and the Executive Committee approved, the establishment of the Sidney Suslow Outstanding Forum Paper Award. This award may be presented annually to the individual presenting the Forum paper (from the previous year's Forum) judged to be of the highest quality with regard to the application of research methodology and analysis as well as the contribution of the topic to the development of the field of institutional research.

The first Sidney Suslow Outstanding Forum Paper Award (for the outstanding paper presented at the previous Forum) was presented at the 1978 Forum in Houston. The paper was printed in its entirety in the proceedings of that Forum, *Research and Planning for Higher Education*. The award for the 1978 outstanding paper was presented at the 1979 Forum in San Diego and was published in the first special AIR Forum issue of the AIR journal, *Research in Higher Education*. Subsequent award papers have been and will continue to be published in their entirety in the special issue of *Research in Higher Education*.

SIDNEY SUSLOW OUTSTANDING FORUM PAPER AWARD RECIPIENTS

1977 Forum: *Calculating the Economic Multipliers for Local University Spending*
Charles Dudley Salley, Georgia State University

1978 Forum: *A Longitudinal Study of Grades in 144 Undergraduate Courses*
James E. Prather, Glynton Smith, and Janet E. Kodras, Georgia State University

1979 Forum: *The Study of Academic Department Performance*
Alan C. Bare, Rutgers, The State University of New Jersey

1980 Forum: *Factors in Teaching Assignments: Measuring Workload by Effort*
Gerald W. McLaughlin, James R. Montgomery, Archer R. Gravely, and Beatrice T. Mahan

Abstracts and Summaries of Contributed Papers, Seminars, Symposia, Panels, Workshops, Table Topics, and Special Interest/Regional Group Meetings

PRE-FORUM 2C

SEMINAR: ORGANIZATIONAL PRODUCTIVITY AND THE SELF-FULFILLING PROPHECY (professional development opportunity—PDO)

ED D. ROACH (presenter), Dean, School of Business, Southwest Texas State University

The objective of the seminar was to help participants (1) develop an awareness of the extraordinary influence that people have on others without being aware of that influence, (2) examine the phenomenon of the self-fulfilling prophecy, and (3) examine research on the phenomenon and assess how to become more productive administrators through a better understanding of the self-fulfilling prophecy. The session featured lecture, a film, a leadership exercise, and discussion.

PRE-FORUM 2E

WORKSHOP: ADVANCED APPLICATIONS OF MICROCOMPUTERS (professional development opportunity—PDO)

ELIOT S. ELFNER (co-presenter), Associate Professor of Business Administration, St. Norbert College

JOHN SCHOFIELD (co-presenter), Planner III, Prince William County Planning Office (Virginia)

The purpose of this workshop was to present information that is illustrative of the potential benefits of employing locally installed, dedicated, desktop microcomputers in the regular tasks associated with institutional research. While many applications are possible, this workshop concentrated on two: the use of a microcomputer (1) in long-range planning and (2) in forecasting time series data streams. Other regular uses were also discussed briefly.

PRE-FORUM 2F/G

SEMINAR: CHANGES IN TECHNOLOGY: IMPLICATIONS FOR POSTSECONDARY EDUCATION AND INSTITUTIONAL RESEARCH (professional development opportunity—PDO)

E. MICHAEL STAMAN (co-presenter), Senior Principal Consultant, Systems and Computer Technology, Inc.

NORMAN P. UHL (co-presenter), Professor of Educational Psychology, Mount St. Vincent University

Participants examined how technological trends may impact and possibly even modify the practices of research and planning in higher education. Issues considered included (1) the impact of technological change on higher education, (2) ethical and/or sociological problems which may become significant issues, (3) the nature of resistance to change, and (4) the impact of this resistance on the penetration of technology into higher education organizations. The seminar was organized into four areas: trends in technology, the social-psychological variables related to resistance in change, changing variables and technological applications, and the social/ethical issues related to technological decisions.

PRE-FORUM 3C

WORKSHOP: TIME MANAGEMENT (professional development opportunity—PDO)

ED D. ROACH, (presenter), Dean, School of Business, Southwest Texas State University

The objectives of the workshop were to develop (1) an awareness of how little time people have, (2) a philosophy of time management (within the context of organizational culture), and (3) a better capability for time management. The session featured lecture, a film, a time management exercise, and discussion.

2H NEWCOMER ORIENTATION (special session)

WARREN W. GULKO (coordinator/presenter), Past AIR President/Forum Special Interest Groups Committee Member/Assistant Vice President & Director of Finance, Temple University School of Medicine

The purpose of this orientation was to help newcomers become more familiar with the Forum and with AIR in general. The session was designed to acquaint participants with Forum activities and with AIR opportunities for service as well as to provide an occasion to interact with other newcomers and some active AIR members.

3/4A CONDUCTING AN ECONOMIC IMPACT STUDY (workshop)

FLETCHER F. CARTER (director), Director of Institutional Research, Radford University

In the present financial crisis, an institution of higher education must be aware of its economic impact upon the surrounding community. This impact results from student and faculty spending as well as from institutional spending. In addition, graduates of the institution have a long-term economic impact upon the community. This workshop was designed to give the interested person the necessary information and skills to conduct an economic impact study in his or her own institution. Utilizing fictional survey information, participants worked to develop sub-impact solutions for an economic impact study.

3/4B THE BASIC PRINCIPLES OF GRAPHIC PRESENTATION (workshop)

JOANNE BRANSCUM (director), Research Analyst, Arkansas Department of Higher Education

JERRY L. BELL (co-director), Statistician II, University of Arkansas-Little Rock

LAURA PITTMAN (co-director), Data Collection Analyst, Arkansas Department of Higher Education

Participants in this workshop were introduced to the fundamentals of understanding and producing professional-quality graphics. Charts and graphs make possible the presentation of quantitative data in a simple, clear, and effective manner and facilitate the comparison of relationships and trends. The workshop included a discussion of (1) various types of charts and graphs, (2) misuse of graphics, and (3) various types and costs of equipment and material used in the production of graphics. Also, participants were provided basic graphic tools and simple line graphs, bar and pie charts, more complex ellipses, and three-dimensional bar charts.

3/4C TIME SERIES FORECASTING: USING NEW TECHNIQUES TO FORECAST STUDENT ENROLLMENT (workshop)

ROBERT ROSEN (director), President, Resource Control Systems, Inc.

This workshop acquainted participants with new time series forecasting techniques, in particular the ARIMA models developed by Box and Jenkins. It began with a discussion of the Box-Jenkins techniques and their applicability in forecasting student enrollment. It also covered (1) the relationship between time series forecasting techniques and other structural techniques, (2) a description of the various ARIMA model forms, and (3) an introduction to the statistical tests used to identify specific models. Four hands-on model-identification exercises were included.

3/4D HUMANIZING ACADEMIC INFORMATION SYSTEMS IN HIGHER EDUCATION—THE BUDGETARY PROCESS (workshop)

RICHARD A. MANAHAN (director), Vice President for Finance & Administration, East Tennessee State University

RONALD E. BELLER (co-director), President, East Tennessee State University

JERRY L. GEHRE (co-director), Director of University Planning & Capital Budgets, East Tennessee State University

Because of increased internal and external pressures on institutions of higher education, budgetary systems are being developed which include information systems and financial-planning models. Often the systems become more important than the results, and the impact on programs and individuals becomes secondary. The objectives of this workshop included (1) the development of a humanistic budgetary process in a technological environment, (2) the enhancement of administrators' budgetary knowledge and skills, and (3) the better understanding of information needs for budgetary decision making.

3/4E DESIGNING AN EFFECTIVE QUESTIONNAIRE (workshop)

LINDA A. SUSKIE (director), Director of Institutional Research, State University of New York-College at Oswego

This workshop focused on planning, writing, and assembling an effective questionnaire. Upon completion, the participants were expected to be able to prepare a questionnaire that (1) is appropriate for the objectives of the study, (2) is clear and unbiased, (3) is considerate of the respondents and motivates a response, and (4) yields data that can be easily analyzed. Topical discussions were followed by small-group work.

3/4F INTRODUCTION TO INSTITUTIONAL RESEARCH: A WORKSHOP FOR NEWCOMERS

J. STANLEY LAUGHLIN (director), Project Coordinator, State Board of Higher Education, Idaho State University

The purpose of this workshop was to provide information, as well as a setting for information, about activities and functions normally considered a part of institutional research. The intent was to respond to such questions as these: What is it that institutional researchers and/or planners do in daily operations? What is expected of these people by the organizations which employ them? Some of the topics covered included (1) organizing the institutional research office, (2) learning the tools of the trade, (3) locating and using reference materials, and (4) communicating effectively.

3Q AIR BUDGET BRIEFING (special session)

WILLIAM F. LASHER (resource person), AIR President/Associate Vice President for Budget & Institutional Studies, University of Texas-Austin

HANS H. JENNY (resource person), AIR Treasurer/Senior Counselor to the President, Chapman College

W. SAM ADAMS (resource person), Incoming AIR President/Assistant Graduate Dean, University of Wisconsin-Oshkosh

Other members of the Executive Committee and the Executive Secretary

AIR members had the opportunity at this time to ask questions about and react to the proposed 1983–84 AIR budget which was acted upon at the annual business meeting at 7:30 on Wednesday morning, May 25.

3S SIG FAIR (special interest group/special session)

EDITH H. CARTER (coordinator), Forum Special Interest Groups Committee Chair/Statistician, New River Community College

Round tables were set throughout the lobby so that each special interest or regional group had a spot to congregate, attract and meet new people, answer questions, distribute materials or information, and make plans for activities at the Forum. *All* Forum attendees were urged to come and browse through the SIG FAIR!

4L VIRGINIA ASSOCIATION FOR INSTITUTIONAL RESEARCH (VAIR) (special interest group)

WILLIAM R. FENDLEY, Jr. (convener), Associate Director of Institutional Planning & Studies, University of Virginia

The Virginia Association for Institutional Research represents all public and private colleges and universities in the Commonwealth of Virginia. This session served as an informal gathering of all researchers and planners from Virginia. Participants had an opportunity to meet new and old AIR colleagues and discuss plans for future VAIR activities, including the fall meeting planned for Virginia Beach, November 14–16. Afterward, the group adjourned to a local restaurant for a social hour and dinner.

4N NORTH CAROLINA ASSOCIATION FOR INSTITUTIONAL RESEARCH (NCAIR) (special interest group)

ROBERT M. USSERY (convener), Director of Institutional Research, East Carolina University

This session featured presentations and discussion on topics of interest to institutional researchers from North Carolina.

HE 016 507 30—"Coping Strategies for Job Stress among Institutional Researchers," by Timothy R. Sanford

4P ILLINOIS ASSOCIATION FOR INSTITUTIONAL RESEARCH (IAIR) (special interest group)

SAMUEL E. TURNER (convener), Director of Institutional Research & Planning, Western Illinois University

4Q NORTH EAST ASSOCIATION FOR INSTITUTIONAL RESEARCH (NEAIR) (special interest group)

ROBERT S. LAY (convener), President of NEAIR/Director of Enrollment Management Research, Boston College

Researchers and planners from Connecticut, Maine, Massachusetts, Maryland, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont were invited to gather. The meeting focused on (1) between-conference activities (e.g., workshops on micro-computing, marketing, etc.), and (2) development plans for the 1983 conference to be held in Hershey, Pennsylvania, October 16–18.

4R OHIO ASSOCIATION FOR INSTITUTIONAL RESEARCH (OAIR) (special interest group)

AARON DONSKY (convener), Director of Institutional Research & Development, Lakeland Community College

Ohio institutional researchers were invited to meet at this time to discuss (1) plans for the fall conference, (2) topics of interest to Ohio researchers at the fall conference, and (3) projects of mutual benefit to Ohio postsecondary institutions. Gary Moden and Gary Donhardt made a presentation entitled "Educational Outcomes: Measuring the Impact of General Education." James Litwin and Timothy Dykstra served as discussants.

4S TABLE TOPICS (informal topical discussions)

DONALD M. NORRIS (coordinator), Associate Forum Chair/Director, Office of Policy Analysis, University of Houston-Central Campus

The table topic discussions provided an early opportunity to identify and interact informally with colleagues interested in specific current issues. Knowledgeable persons facilitated informal discussion, but no presentations were made.

1. DECISION SUPPORT SYSTEMS IN HIGHER EDUCATION

R. SUE MIMS (facilitator), Director of Academic Planning & Analysis, University of Michigan

WILLIAM L. TETLOW (co-facilitator), Director, Information for Management Program, National Center for Higher Education Management Systems (NCHEMS)

Participants exchanged information and assessments about decision-support systems (DSS) within their institutions—software, hardware, and applications. Issues and problems related to such systems were identified and discussed, including the following: the potential for creating an "information anarchy," implications for changing institutional research roles, pros and cons of the "information center" concept, management of information as an institutional resource, the development of model literacy in addition to computer literacy, and the gap between the end of modeling and decision making. Some participants noted problems such as data availability, data integrity, and timeliness with efforts to create a single, integrated system, while others outlined alternative approaches such as modular development, "loosely coupled" systems, and "throw away" systems. Differences between DDS and MIS were discussed.

2. EVALUATION OF ACADEMIC PROGRAM QUALITY

JOSEPH E. (Tim) GILMOUR (facilitator), Executive Assistant to the Chancellor, University of Maryland-College Park

ELIZABETH F. FOX (co-facilitator), Director of Institutional Research, University of Alabama-Birmingham

The session began with a discussion of what quality is and how it is measured. Several approaches to quality assessment were identified, as follows: (1) accreditation review (self-study), (2) reputational surveys (National Academy of Science rankings), (3) focused peer reviews (departmental assessment), (4) organizational effectiveness assessment, and (5) value-added measurement. The group then discussed whether or not there were disciplinary areas in which quality had declined in recent years. Education was identified, although the ensuing discussion was not conclusive as to whether or not a decline had actually occurred or the reasons for any such decline.

3. RESOURCE ALLOCATION TECHNIQUES

JOHN L. YEAGER (facilitator), Vice Chancellor for Planning & Budget, University of Pittsburgh

LEONARD M. BRUSH (co-facilitator), Associate Director of Planning & Budget, Pennsylvania State University

Two resource budgetary allocation models (Pennsylvania State University and University of Pittsburgh) were briefly presented to the participants. Both models contained a major component for resource allocation, and this became the central focus of discussion and elicited a high degree of interest on the part of the participants. Specifically, methodologies employed for reallocation and the decision-making process for determining areas to be reduced were explored. A high degree of pragmatism was evidenced as to how institutions proceeded with this type of process. Apparently, most of the institutions have been or are in the process of developing methodologies that will permit them to reallocate funds internally. Some attention also was given to the funding of nonacademic units and the evaluation and financing of auxiliary services.

4. STATE-LEVEL RESEARCH

WILLIAM BOWES (facilitator), Assistant Director of Financial Planning, Connecticut Department of Higher Education

JENNIFER B. PRESLEY (co-facilitator), Director of Research, Connecticut Department of Higher Education

This group discussed reduced funding in a period of fiscal austerity and its effect on growth in community colleges in particular. The choice between quality and access becomes explicit at all levels of higher education. Two of the represented states saw formula budgeting as a management tool to begin to address these issues.

5. APPROACHES TO AND PROBLEMS WITH RETRENCHMENT

WILLIAM A. SIMPSON (facilitator), Associate Professor, Michigan State University

LAURA E. SAUNDERS (co-facilitator), Director of Planning & Capital Budget, University of Washington

Problems related to program termination and staff reduction vis-à-vis tenured faculty were discussed. The potential problems of retrenchment within an institution as well as within a state system were also discussed at some length.

6. THE POLITICS OF INFORMATION

CAMERON L. FINCHER (facilitator), Regents Professor/Director, Institute of Higher Education, University of Georgia

DEBORAH J. TEETER (co-facilitator), Director of Institutional Research & Planning, University of Kansas

Initial discussion was on the inherent politics of presidential search and selection procedures. Questions were raised about the politics of affirmative action in campus employment, the effectiveness of national advertising of open positions, and the different styles of politics that are evident when there is an internal candidate.

7. POLICY ANALYSIS AND THE SYNTHESIZING OF QUALITATIVE/QUANTITATIVE INFORMATION

DON E. GARDNER (facilitator), Director of Institutional Research, Portland State University

JOHN A. DUNN, Jr. (co-facilitator), Vice President for Planning, Tufts University

Discussion focused on the use of institutional research in planning and the nature of the planning process. Policy analysis was broadly considered along with potential (as opposed to real) impact on decisions.

8. INFORMATION COMPARABILITY AND DATA EXCHANGE

MARILYN K. BROWN (facilitator), Director of Institutional Studies, University of Maryland-College Park

STANLEY I. ADELMAN (co-facilitator), Director of Institutional Research, Amarillo College

A wide variety of topics was discussed briefly, including the feasibility of exchanging space utilization data among research universities and the problem of comparability in any exchange. A consortium was interested in ways of initiating and exchanging data and wanted to know what was most valuable. Maintaining the confidentiality of data from the viewpoint of the user institutions as well as the contributors was also discussed.

9. INSTITUTIONAL RESEARCH IN THE FACULTY ARENA

RICHARD B. HEYDINGER (facilitator), Assistant to the Vice President for Academic Affairs, University of Minnesota

MARY E. CORCORAN (co-facilitator), Professor of Higher Education, University of Minnesota

Academic program planning and research on faculty and academic departments were discussed.

10. ACADEMIC STANDARDS AND THE QUALITY OF TRANSFER PROGRAMS

MARY KATHRYNE BARATTA WILDERS (facilitator), Director of Institutional Research, Moraine Valley Community College

MARJORIE K. RAAB (co-facilitator), Director of Institutional Research, Nassau Community College

The issue of transfer student success was discussed from the viewpoints of both four-year and two-year colleges. Reverse transfer student success was also identified as an area of concern. Methods of identifying data necessary to determine the quality of transfer programs was discussed at length. Exemplary programs in Illinois, New York, Texas, Colorado, and Washington were shared.

11. SURVIVAL IN THE MIDST OF REAGONOMICS

DAVID L. BRODIGAN (facilitator), Registrar/Director of Institutional Research, Carleton College

JEANNE E. BUDIG (co-facilitator) Planning & Development Officer, Center for Research Libraries

ALICE M. THOMAS (co-facilitator), Assistant Director of Educational Research, St. Olaf College

Economic issues related to current government programs and policies were discussed for two major classes of nonprofit institutions: research libraries and private liberal arts colleges. Budig described effects which changing economic conditions have had on the well-being of the Center for Research Libraries; development plans designed to respond to those changes were also discussed. Thomas and Brodigan discussed the consequences of changes in government support of higher education, particularly those having to do with federal sources of financial aid for students. The history of government assistance in this area since 1958 was reviewed briefly, and problems such as dependence upon tuition revenues, maintenance of endowment, and the possibility of enrollment decline were discussed in this context.

7T PRESIDENTIAL ADDRESS: THE STATE OF THE ASSOCIATION AND THE INSTITUTIONAL RESEARCH PROFESSION (general session)

MANTHA V. MEHALLIS (chair), AIR Forum Chair/Director of Institutional Research, Broward Community College

EDWARD K. DesROSIERS (welcome), Forum Local Arrangements Chair/Director of Research, Council of Ontario Universities

WILLIAM L. TETLOW (introduction of speaker), Immediate Past AIR President/ Director of Information for Management Program, National Center for Higher Education Management Systems (NCHEMS)

WILLIAM F. LASHER (speaker), AIR President/Associate Vice President for Budget & Institutional Studies, University of Texas-Austin

(The text of the Presidential address begins on page 36.)

8H SPECIAL EVENT: FORUM RECEPTION (social event)

WILLIAM F. LASHER (host), AIR President

The president and members of the Executive and Forum Committees of AIR welcomed registrants at this reception on the first evening of the Forum. The Fife and Drums Corps, which officially opened the Forum, also played from time to time throughout the evening.

10A TENNESSEE ASSOCIATION FOR INSTITUTIONAL RESEARCH (TAIR) (special interest group)

DOUGLAS I. BLOM (convener), Director for Administrative Services/Director for Institutional Research, University of Tennessee-Martin

At the fall 1982 meeting of the Southern Association for Institutional Research, a group of Tennessee researchers expressed a need for a statewide organization in which researchers could exchange ideas and share in problem-solving techniques. The focus of this session at the Forum was on the needs expressed at that organizational meeting. The T.H.E.C. changes in reporting formats were discussed, and the retention studies of each participant's institution were shared. The group will meet during the SAIR conference.

10B NATIONAL COUNCIL FOR RESEARCH AND PLANNING (NCRP) (special interest group)

MARY KATHRYNE BARATTA WILDERS (convener), Director of Institutional Research, Moraine Valley Community College

Two-year college institutional researchers were acquainted at this session with research and data sources addressing their unique needs. An overview of evaluation systems and various data bases necessary for successful evaluations were discussed. The session also addressed local, state, and national issues and forecasts which affect two-year colleges. An NCRP business meeting was incorporated.

10C STATE- AND SYSTEM-LEVEL INSTITUTIONAL RESEARCHERS AND FEDERAL AGENCY REPRESENTATIVES (special interest group)

JOHN R. WITTSTRUCK (convener), Network Director, SHEEO/NCES Communication Network

The discussion focused on issues currently being addressed by state agencies and system offices. Included in the discussion were issues related to financing higher education, state reorganization of its system of higher education, the delivery of instruction via telecommunications, the need for more comparable data, and the federal role in collecting data at the national level.

10D INDEPENDENT COLLEGE ASSOCIATION FOR INSTITUTIONAL RESEARCH (ICAIR) (special interest group)

GERALD H. LUNNEY (convener), Associate Director/Director of Research, Council of Independent Kentucky Colleges and Universities

The Independent College Association for Institutional Research has been established to promote communication and mutual support among institutional research personnel at independent, private (primarily small) colleges. Persons attending the meeting discussed the ways in which computers, especially microcomputers, are used in their work. Further efforts to structure the organization were discussed. They included the following: (1) publicizing the existence and purpose of ICAIR, (2) producing regular newsletters next year, (3) conducting a survey to identify clusters of similar institutions, and (4) developing an extended program for the next Forum.

10E URBAN INSTITUTIONS (special interest group)

HARMON C. McALLISTER (convener), Director, Office for Institutional Research, Wayne State University

This session provided an open forum and information exchange among those concerned with the role of urban institutions in postsecondary education.

10F MARKETING AND MARKETING RESEARCH (special interest group)

LARRY H. LITTEN (convener), Associate Director, Consortium on Financing Higher Education

This was an information-sharing session for researchers who are involved with or interested in market research. Participants shared their past, current, or planned activities in this area and also were able to ask for advice or referrals regarding problems encountered in the conduct of such work. The meeting also served to reinforce an emerging network of people with these research interests.

10G ROCKY MOUNTAIN ASSOCIATION FOR INSTITUTIONAL RESEARCH (RMAIR) (special interest group)

MARK MEREDITH (convener), Director of Management Information Exchange & Analysis, University of Colorado-Boulder

Participants held a round-table discussion to share events of current interest at their institutions—1982–83 actual and 1983–84 anticipated. Topics included the following: budget increases, enrollment changes, administrative changes, tuition increases, early retirement, faculty salary increases, the use of personal and microcomputers, and other matters. In addition, the group discussed options and preferences concerning the fall 1983 RMAIR conference (scheduled for October 12–14 in Taos) which is being hosted by the University of New Mexico.

10Z AIR PAST PRESIDENTS (OLD BOYS AND GIRL CLUB) (special interest group)

WILLIAM L. TETLOW (convener), AIR Immediate Past President

A.M.

A breakfast conference designed exclusively for genial humor, insight, judiciousness, knowledge, literate musings, news, omniscient perorations, and quixotic reminiscences, slanted toward uplifting very wisened, xenial, and youthful zealots.

P.M.

After being convinced data extraction from general heuristics induces jaundiced and kithless leadership, most noble old presidents quietly retire and start tippling urns (of) very wet, xanthic and yeasty zythum.

11Z SPECIAL EVENT: WELCOME FOR SPOUSES AND GUESTS

(social event)

All spouses and non-registered guests were invited to join members of the Forum Local Arrangements Committee and their spouses for coffee and rolls. This event provided an opportunity to ask/learn about some things to do and see in Toronto.

12T KEYNOTE ADDRESS: IT AIN'T ALL BAD (general session)

WILLIAM F. LASHER (chair), AIR President/Associate Vice President for Budget & Institutional Studies, University of Texas-Austin
JAMES M. HAM (welcome), President, University of Toronto
DEAN F. BERKLEY (speaker), Professor, School of Education, Indiana University

A piper from the 48th Highlanders Regiment, in Scottish attire, greeted Forum registrants, announced the session speakers, and played several old favorites such as "Amazing Grace" and "Road to the Isles."
(The text of the Keynote address begins on page 5.)

13A CONTRIBUTED PAPERS (authors' roundtables)

PENNY A. WALLHAUS (convener), Associate Director of Research, Illinois Community College Board

13A(1) NEW CONFIGURATIONS IN UNIVERSITY ADMINISTRATION: THE ROLE OF THE INSTITUTIONAL RESEARCH OFFICE IN SUPPORT OF UNIVERSITY ADVANCEMENT

JEANNE E. BUDIG, Planning & Development Officer, Center for Research Libraries

Institutional research professionals, traditionally the providers and analyzers of institutional data, will be asked to adopt new and unfamiliar roles as the institutions respond to pressures to reduce administrative costs. One of these roles may be in support of advancement—the securing of all forms of extramural support. This paper explores one institution's response to such an administrative reorganization and includes a search of the literature and an insight into what new roles the institutional researcher may be asked to fill.

13A(2) ASSESSMENT OF LABORATORY AND FIELD-WORK ACTIVITIES

CHARLES H. BELANGER, Director of Institutional Research, Université de Montréal
LISE TREMBLAY, Research Officer, Office of Institutional Research, Université de Montréal

Laboratory and field-work activities in areas dealing with health, education, and social intervention are important components of a student's professional preparation. Despite the considerable amount of human and financial resources invested in those activities, too many universities fail to monitor and question current practices. This paper proposes a methodology to examine the main component variables of the problem, to quantify and compare practices (mainly in terms of personnel and cost), and to place such activities into the broader picture of all teaching responsibilities, educational objectives, and economic requirements of universities.

HE 016 531

13B CONTRIBUTED PAPERS (traditional)

EDITH H. CARTER (convener), Statistician, New River Community College
JOHN E. STECKLEIN (facilitator), Professor of Psychology Foundations, University of Minnesota

13B(1) INFLUENCE OF DEMOGRAPHIC CHARACTERISTICS ON AN AREA OF FRESHMAN ENROLLMENT

GERALD W. McLAUGHLIN, Associate Director of Institutional Research, Virginia Polytechnic Institute and State University
JAMES R. MONTGOMERY, Director of Institutional Research, Virginia Polytechnic Institute and State University
DEBORAH C. STRICKLAND, Graduate Teaching Assistant, Virginia Polytechnic Institute and State University

This study investigates how the demographic characteristics of a population in a region/area are related to the likelihood that high school graduates will attend specific state colleges or universities. The study applies human capital theory to select the independent variables. It uses multiple linear regression and multidimensional scaling techniques to develop models relating enrollment to these independent variables and to predict what happens to enrollment in given institutions as shifts occur in the demographic area. The fourteen institutions in the study are clustered to form homogeneous groups and the underlying constructs are interpreted to give decision makers a better understanding of what to anticipate as demographic characteristics of a region change.

13B(2) STUDENT-FACULTY INTERACTION AND ITS EFFECT ON FRESHMAN-YEAR OUTCOMES AT A MAJOR STATE UNIVERSITY

JEAN J. ENDO, Assistant Director of Academic Planning & Analysis, University of Colorado-Boulder
RICHARD L. HARPEL, Assistant Vice Chancellor for Academic Affairs, University of Colorado-Boulder

This study examined the impact of student-faculty interaction on several freshman-year educational outcomes. Outcomes data were gathered from the 1981 entering freshman cohort at a major state university through a Freshman Questionnaire and a follow-up Educational Experience Survey. After controlling for the impact of peer and university staff interaction as well as students' background characteristics, student-faculty interaction was found to have a significant effect on the educational development of freshman after almost one year at the university.

13C CONTRIBUTED PAPERS (traditional)

PAUL E. KUNKEL (convener), Director of Research & Planning, Parkland College
ROBERT I. LEWIS (facilitator), Director of Management Systems & Planning, University of Arkansas-Little Rock

13C(1) POWER AND PERIPHERALITY: THE ALLOCATION OF SCARCE RESOURCES IN COLLEGES AND UNIVERSITIES

JUDITH DOZIER HACKMAN, Director of Institutional Research, Yale University

The paper proposes a practical, research-based theory about how colleges and universities allocate resources among budgetary units during times of financial constraint. The theory is developed from qualitative interview responses at six varied institutions and bolstered by preliminary analyses of quantitative questionnaire responses. Two kinds of organizational power—a unit's *potential power* gained by its unique ability to bring in outside resources needed by the organization and a unit's *embedded power* gained through the strength of its ties to the organizational core—are combined with *unit head strategies* to explain about half of the variance in *budget allocation changes*. Differences between core and preipheral units are explored.

13C(2) ASSESSING ORGANIZATIONAL INEFFECTIVENESS: A STRATEGY FOR INSTITUTIONAL IMPROVEMENT

KIM CAMERON, Director of Organizational Studies, National Center for the Study of Higher Education Management Systems (NCHEMS)

This paper introduces a new approach to assessing and improving organizational effectiveness in institutions of higher education. It focuses on the factors that inhibit successful institutional performance (weaknesses) rather than on factors that contribute to or indicate successful institutional performance (strengths). A well-developed technique for assessing organizational ineffectiveness—called Fault Tree Analysis—is described and illustrated in the paper. The advantages and disadvantages of this technique are discussed, and suggestions are made for how institutional effectiveness can be significantly improved by using this approach.

13D CONTRIBUTED PAPERS (traditional)

IRA W. LANGSTON (convener), Coordinator of Research & Testing, School-College Relations, University of Illinois

DENNIS D. HENGSTLER (facilitator), Director of Institutional Research, University of North Carolina-Asheville

13D(1) USING REGRESSION ANALYSIS TO DETERMINE INEQUITIES IN FACULTY SALARIES

LINDA A. SUSKIE, Director of Institutional Research, State University of New York-College at Oswego

SHARON SHEARER, Intern, Office of Institutional Research, State University of New York-College at Oswego

Linear regression models predicting faculty salaries from professional and affirmative action variables were developed to validate promotion and merit criteria, set a starting salary scale, and identify possible systematic and individual salary inequities. Rank, age, year of appointment, department chair status, librarian status, and sex all affected salary significantly; tenure, race, and citizenship did not. Contrary to hypothesis, removing rank and tenure from the model did not unmask a sex effect.

HE 016 498

13D(2) MULTIVARIATE ALTERNATIVES TO REGRESSION ANALYSIS IN THE EVALUATION OF SALARY EQUITY-PARITY

RICHARD D. CARTER, Director of Analysis & Planning, University of Wisconsin-Superior

RHEA S. DAS, Professor/Program Coordinator, Psychology, University of Wisconsin-Superior

ANDREA H. GARNELLO, Graduate Assistant, University of Wisconsin-Superior

RICHARD C. CHARBONEAU, Instructional Computing Assistant, University of Wisconsin-Superior

The analysis of salary equity-parity in institutions of higher education typically involves the use of multiple regression analysis to determine predicted salary and the residual difference between predicted and actual salary. Multiple regression analysis forces the variable weights to be uniform throughout the salary structure, restricts the coordinates to those provided by the variables as measured, and as customarily used, treats qualitative variables as if they were continuous. Two multivariate alternatives to regression analysis are presented, canonical analysis and multiple discriminant analysis, both of which define new coordinate systems for evaluation of dimensions underlying salary decisions.

HE 016 500

13F/G EXPANDING EVALUATION TECHNOLOGY: CRITICAL ISSUES FOR IMPLEMENTING EVALUATION IN ADMINISTRATIVE AND SUPPORT AREAS (panel)

R. SUE MIMS (moderator), Director of Academic Planning & Analysis, University of Michigan
TIMOTHY J. DELMONT, Assistant Chief Analyst, Management Planning Division, University of Minnesota
RICHARD F. WILSON, Assistant Vice Chancellor for Academic Affairs, University of Illinois

After a decade of attention to developing academic program review systems, many institutions are now showing renewed interest in evaluating administrative areas. Evaluation of service or support units presents different design problems and raises numerous issues: when, how, by whom, and to what ends? Evaluation technology—the methods and processes for handling technical problems of design, implementation, and use—will need to be improved in order to meet new needs of the next decade. This panel compared, contrasted, and assessed new approaches that several institutions are taking to address problems and issues of evaluation of administrative and support units.

13H WHEN THE TECHNOLOGICAL REVOLUTION COMES TO CAMPUS: DEALING WITH THE IMPACT OF TECHNOLOGY ON OFFICES AND PEOPLE (symposium)

JANA B. MATTHEWS (moderator), Director, Direct Assistance Program, National Center for Higher Education Management Systems (NCHEMS)
CARL R. ADAMS (presenter), Professor of Management Sciences, University of Minnesota
BERNARD S. SHEEHAN (presenter), Professor, Faculty of Management, University of Calgary
WILLIAM L. TETLOW (presenter), Director, Information for Management Program, National Center for Higher Education Management Systems (NCHEMS)

There can be little doubt that the Technological Revolution is on. The popular and professional media regularly carry stories on recent technical developments at the "front." But what of the people involved? The presenters in this symposium, all of whom have studied the impact of technological change in institutions and have been through the process on their own campuses and elsewhere, examined the human—and human resource management—implications for colleges and universities of the revolution in information processing. The symposium considered such questions as these: How can technological change be introduced smoothly into institutional research offices and their institutions? What changes are likely in office and institutional structures? In their functioning? What threats does technological change pose for managers and their staffs and how can those threats be minimized, if not avoided? How can technological change be a vehicle for human resource development? In brief, this symposium sought to provide institutional researchers with what they need to know in order to introduce technological change, or what they need to know to cope with and guide it if it has already arrived on campus.

13U TAKING ADVANTAGE OF USER-ORIENTED SOFTWARE PACKAGES (panel)

BERNARD YANCEY (moderator), Research Associate, University of Texas-Austin
STANLEY I. ADELMAN, Director of Institutional Research, Amarillo College
GREG B. FAWCETT, Director of Program Analysis, University of Michigan
W. KEVIN HUNT, Director of Research, Planning & Data Services, Tidewater Community College

The explosion in computer technology and software has produced a selection of computer hardware and software packages that can be very useful for the institutional researcher who has limited programming experience. The purpose of this panel was to bring together a group of institutional researchers from a variety of settings who have been successfully using these packages to build, maintain, and run statistical analysis on data bases or to develop information

management systems with a minimum of technical support. The hope was that, by illustrating what can be done, other institutional researchers will begin to take advantage of the existing computer resources that they may have hesitated to use in the past because they have felt that they didn't have a strong enough technical background.

14L USERS OF AND THOSE INTERESTED IN THE ACT EVALUATION/SURVEY SERVICE (special interest group)

MICHAEL J. VALIGA (convener), Program Associate, Institutional Services, American College Testing Program

The American College Testing Program (ACT) participated in a discussion with interested members of the instruments and related services of the ACT Evaluation/Survey Service (ESS). The ESS has been designed to provide secondary and postsecondary institutions with a variety of specific-purpose survey instruments for such purposes as institutional planning, research, evaluation, and self-study. The purpose of this session was threefold: (1) to discuss approaches that have been employed in using survey data, (2) to introduce two new ESS instruments developed during 1982–83, and (3) to obtain suggestions and comments regarding the future directions of the service. An open discussion of the survey needs of institutional research offices followed.

14M APPLICATIONS OF NONLINEAR MODELS (special interest group)

WILLIAM A. SIMPSON (convener), Associate Professor, Michigan State University

This session focused on the qualitative behavior of dynamic models that are nonlinear in their variables. Modeling discontinuous or divergent behavior in institutional research applications was explored. The state of the art of catastrophe theory was reviewed and new research directions discussed.

15A CONTRIBUTED PAPERS (authors' roundtables)

THALY NILSSON (convener), Vice President of Planning, University of Uppsala

15A(1) A STUDY ON EFFICIENCY OF OFFICE SYSTEMS AT THE COLLEGE OF DUPAGE

CAROL C. WALLACE, Coordinator of Research & Planning, College of DuPage

College administrators have an obligation and a commitment to the community and the students to provide the best educational system within budgetary constraints. Staying within budgetary constraints has posed a challenge, considering the ever-increasing burden of administrative support costs. In an effort to increase the efficiency and effectiveness of the clerical/administrative support system, office automation procedures were studied. The current office system of administrative support, hourly and personnel efficiency, available technical equipment, and methods of organization were analyzed. Methodology of this study analyzed time/task distribution of support and managerial personnel, work cycles, needs, suggestions, and attitude towards change of support and managerial personnel. Guidelines for organizing support clusters and an implementation schedule are given. Decision makers considering the cost outlay and cost savings of automative support equipment will be interested in the methodology and findings of this study.

15A(2) PLANNING FOR ENHANCED INFORMATION SYSTEM SUPPORT FOR ACADEMIC SERVICE UNITS

DONALD M. NORRIS, Director, Office of Policy Analysis, University of Houston-Central Campus
STEPHEN ADLER, Regional Manager, Systems and Computer Technology, Inc.
LARRY CRAFT, Associate General Manager, Systems and Computer Technology, Inc.
CLAIRE GITTELSON-REID, Manager, Higher Education Software Marketing, Systems and Computer Technology, Inc.
SIDNEY A. PRUITT, Coordinator of Academic Information Systems, University of Houston-Central Campus

As many institutions move into their second or third generation of automated information support systems for academic and services units, planning for such enhancements is becoming increasingly important and substantially more difficult. Many institutional researchers and planners with information system responsibilities or with policy analysis skills are being called upon to play a role in these deliberations and are finding that most existing models for planning are inappropriate to these needs. This paper discusses the special needs of this type of planning and the ingredients for success, building on the experience of the authors and the literature on strategic planning for information systems.

15B CONTRIBUTED PAPERS (traditional)

MARILYN McCOY (convener/facilitator), Director of Planning & Policy Development, University of Colorado System

15B(1) IS EFFICIENCY ENHANCED IN HIGHER EDUCATION BY CENTRAL GOVERNING OR COORDINATING AGENCIES?

SANDRA M. ANDERSON, Graduate Student Assistant, Virginia Polytechnic Institute and State University
LOYD D. ANDREW, Associate Professor of Higher Education, Virginia Polytechnic Institute and State University

As state systems of higher education have expanded rapidly, concern for the maintenance of fiscal efficiency has precipitated the development of statewide governing or coordinating agencies. At present, forty-six states have some form of governing or coordinating agency. Rationales supporting these agencies include claims that they forestall counterproductive competition among institutions, eliminate wasteful duplication, and promote wiser expenditures of public monies. The implication is that central higher education agencies enable institutions and, thus, systems of higher education to operate more efficiently. By examining the relationship between central higher education agencies and institutional efficiency, this study tests the validity of these claims.

15B(2) REALLOCATION AND PROGRAM REVIEW FROM A STATE-LEVEL PERSPECTIVE

KENNETH R. SAUER, Associate Director of Academic Affairs, Illinois Board of Higher Education
STEPHEN M. BRAGG, Assistant Director of Fiscal Affairs, Illinois Board of Higher Education
ROBERT A. WALLHAUS, Deputy Director of Academic Affairs, Illinois Board of Higher Education

This paper describes an analytical technique used to (1) help determine the educational and economic justification of degree programs on a statewide basis, (2) estimate the potential for reallocating resources among programs, and (3) target programs for special scrutiny. The technique is now being used in the context of the program review procedure established in Illinois public universities. Fiscal and student-related data on a total of over 700 programs at the baccalaureate, master's and doctoral levels were included in the analysis. The strengths, weaknesses, and implications of using such a technique in conjunction with statewide program review are discussed.

HE 016 484

15C CONTRIBUTED PAPER (traditional)

KENNETH W. BORAS (convener), Planning Analyst, Pennsylvania State University
RICHARD R. PERRY (facilitator), Associate Vice President for Academic Affairs, University of Toledo

15C(1) HIGHER EDUCATION AND JAPANESE MANAGEMENT: ARE THEY COMPATIBLE?

LOUIS M. SPIRO, Director of Analytic Studies, State University of New York-College at Brockport
JILL F. CAMPBELL, Analytic Studies Assistant Director, State University of New York-College at Brockport

Corporate executives have recently become enamored of Japanese management techniques, and the popular literature in this area has mushroomed. However, these techniques do more than establish quality circles; they propose different value structures linking employees and the organization. As higher education enters and adjusts to the strategic era of the 1980s, an adaptation of these values and a modification of current management philosophies are essential for success. It is the goal of this paper to provide insights into existing obstacles and potential strategies to overcome them for administrators who would choose to implement these techniques in higher education.

HE 016 502

15D CONTRIBUTED PAPERS (traditional)

NORMAN P. UHL (convener), Professor of Educational Psychology, Mount St. Vincent University
LOREN B. JUNG (facilitator), Professor of Higher Education, Southern Illinois University-Carbondale

15D(1) PROFESSIONAL SOCIALIZATION AND CONTEMPORARY CAREER ATTITUDES OF THREE FACULTY "GENERATIONS"

MARY E. CORCORAN, Professor of Higher Education, University of Minnesota
SHIRLEY M. CLARK, Associate Professor of Education & Sociology, University of Minnesota

As one aspect of a study of individual and organizational conditions contributing to faculty vitality, the career socialization and current career attitudes of three faculty generations were compared. These generational comparisons were done separately for two groups of tenured university faculty members. The first comprised a representative group drawn from the humanities, biological sciences, physical sciences, and social sciences; the second was a selected group of faculty, drawn from the same areas, who had been identified as highly active in teaching, research, and service. The analyses focus on similarities and differences in the professional socialization experiences of the two sets of generational groups that appear to be indicative of career success.

HE 016 521

15D(2) CHARACTERISTICS OF AND STRATEGIES FOR INFORMATION SYSTEMS ON FACULTY RESOURCES: A CASE STUDY

JEAN ROGE, Assistant Director of Administrative Studies, Health Sciences Center, University of Illinois-Chicago
GEORGINE PION, Assistant Dean for Research & Graduate Education, Health Sciences Center, University of Illinois-Chicago

This paper describes a computerized system on faculty research activities developed by an academic health sciences center. Its primary purpose is to assist other institutions by outlining the characteristics of the system and the procedures to be undertaken in developing data bases in this area. Consideration of these issues will help insure that the resulting information systems are easily and quickly implemented, that they require minimal financial resources, are readily

accessible by all approved users, and are capable of responding to different types of request from both faculty and campus administration.

HE 016 519

15E CONTRIBUTED PAPERS (traditional)

WILFRED A. WARD (convener), Manager of Institutional Analysis, McMaster University

HORACE F. GRIFFITTS (facilitator), Director of Research, Tarrant County Junior College District

15E(1) PROFILING THE NEEDS OF UNIVERSITY COMMUTER STUDENTS: NEW INSTRUMENTS, METHODS, AND FINDINGS

ALAN C. BARE, Associate Professor of Management, State University of New York-College at New Paltz

The satisfaction of 2,392 students with the environments of five commuter colleges was studied at an eastern university. A reliable instrument was developed to profile student perceptions of 30 aspects of the college environment. Results indicated negative student perceptions of child-care facilities, parking, food, public transportation, a student center, and student activities. Regressing 15 student characteristics upon the environmental index scores showed that (1) all students evaluated "pure" academic programs more highly than "applied," (2) nontraditional learners rated faculty and advising more highly than traditional learners, (3) blacks perceived academic support programs more positively than non-blacks, and (4) women saw the college culture more negatively than men.

15E(2) MARGINAL COSTS OF PART-TIME STUDENTS IN COMMUNITY COLLEGES

PAUL BRINKMAN, Senior Associate, National Center for Higher Education Management Systems (NCHEMS)

As the proportion of students who enroll part time has increased, concern over the financial consequences for higher education institutions has also increased, especially at community colleges. In this study, econometric models are developed to estimate the marginal costs of part-time and full-time students at community colleges. Cost estimates for instruction are compared to those for student services. Contrary to expectations, the ratio of estimated marginal costs (part-time to full-time) is roughly the same for both areas. In addition, the magnitude of the ratio suggests that FTE-based funding, per se, is typically not a threat to institutions with heavy part-time enrollments.

15F/G EFFECTIVELY UTILIZING STUDENT OUTCOMES INFORMATION (panel)

PETER EWELL (moderator), Director, Kellogg Student Outcomes Project, National Center for Higher Education Management Systems (NCHEMS)

STEPHEN R. HAMPLE, Director of Institutional Research, Montana State University

RICHARD L. HARPEL, Assistant Vice Chancellor for Academic Affairs, University of Colorado

PATRICK T. TERENZINI, Director of Institutional Research, State University of New York-Albany

MICHAEL E. YOUNG, Director of Planning Studies, Ohio State University

Institutions have increasingly been collecting data on student outcomes—assessments of the effects of the college experience on students and the degree to which the college experience has met student goals. Considerably less attention has been paid to actually using this kind of information, once collected, to improve institutional planning and decision-making processes. The panel consisted of institutional and central staff participants in a national demonstration project on the effective utilization of student outcomes information. Issues uncovered by the project were described and strategies shared for applying outcomes information to such processes as program review/evaluation, institutional planning/budgeting, and the development of effective recruitment and retention programs.

15H POLICY ANALYSIS (seminar)

BERNARD S. SHEEHAN (convener), Professor, Faculty of Management, University of Calgary

STUART L. SMITH, M.D. (presenter), Chairman, Science Council of Canada

The problem of integrating human resources and technology is a matter for scientific policy analysis. The training of students and the products of research will continue to be in demand by industry and government. Policies of academic freedom and pure research which foster the development of academic disciplines will need to be integrated with manpower requirements and the policies which allow universities to lead society toward a productive economy.

15U INTEGRATING HUMAN RESOURCES AND TECHNOLOGY AT TRADITIONALLY BLACK INSTITUTIONS (panel)

JEANNE E. BUDIG (moderator), Planning & Development Officer, Center for Research Libraries

ROBERT I. LEWIS, Director of Management Systems & Planning, University of Arkansas-Little Rock

This panel comprised individuals with experience as directors of institutional research at traditionally black colleges and universities. They reviewed (1) the role of Title III in the development of human resources and in moving toward optimum utilization of the new technology at the traditionally black institutions, (2) the maximization of human resources while yet maintaining their traditional heritage, (3) opportunities for using the new technology in office automation, (4) strategies for decreasing reliance on Title III, (5) the role institutional research can play in integrating human resources and the new technology at black institutions, and (6) the need to reduce the cultural lag between skills of the institutional researcher and the capabilities of modern technology. The remarks of Harold W. Lundy, Grambling State University, and Samuel Baldwin, Clark College (originally scheduled panelists who were unable to be present), were incorporated into the discussion.

16A CONTRIBUTED PAPERS (authors' roundtables)

DONALD J. REICHARD (convener), Director of Institutional Research, University of North Carolina-Greensboro

16A(1) AN EXAMINATION OF THE NON-FACULTY UNIVERSITY EMPLOYEE AS A HUMAN RESOURCE

VIRGINIA EMAN WHEELESS, Assistant Professor of Speech Communication, Texas Tech University

RICHARD D. HOWARD, Director of Institutional Research, West Virginia University

In recent years, higher education has found itself faced with the problem of retaining highly skilled and qualified faculty and staff. One strategy to help retain these individuals is found in the principles of Human Resource Management. Optimally, this involves an integration of new technology with training and development programs for employees, thus meeting the needs of both employee and institution. The purpose of this investigation was twofold: (1) to examine the needs, relevant to employment, of university non-faculty employees and the extent to which the university has met those needs and (2) to propose training and development programs to meet their needs as well as those of the institution.

HE 016 482

16A(2) MAXIMIZING OPTIMUM UTILIZATION OF PERSONNEL RESOURCES

W. KEVIN HUNT, Director of Research, Planning & Data Services, Tidewater Community College

With stabilizing enrollments, most institutions of higher education are operating with constrained resources, one of which is faculty. This paper presents a personnel resource allocation system that was developed by the institutional research staff and implemented at a large, urban institution. The emphasis was toward achieving maximum efficiency of a limited number of faculty positions available for academic instruction. To obtain broad input, a participatory decision-making process was utilized in establishing faculty allocations by department. The described system provides for structured input and evaluation by planning, institutional research, budget/finance and academic administrative staff. The system also incorporates an annual evaluation process.

16B CONTRIBUTED PAPERS (traditional)

R. DAN WALLERI (convener/facilitator), Institutional Researcher, Mount Hood Community College

16B(1) SYSTEMS PROTOTYPING WITH FOURTH-GENERATION TOOLS: ONE ANSWER TO THE PRODUCTIVITY PUZZLE?

PHYLLIS A. SHOLTYS, Director of Planning & Research, Canisius College

Traditional systems development is extremely time consuming because analysts must spend much time to accurately define users' needs. End users have difficulty visualizing the needed system in the abstract and, after implementation, often revise their perceptions of what is needed. Requests for changes or enhancements produce frustration for both the user and the programmer. The development of information systems using an engineering approach which utilizes both traditional programming techniques and fourth-generation software tools is described in this paper. Fourth-generation applications tools are used to quickly develop a potential system which is revised and expanded as the user clarifies his/her requirements. When fully defined, a combination of cost-effective techniques is used to develop the final system. At a private college where this approach was used, decreased development time and increased user satisfaction have resulted.

HE 016 495

16B(2) IMPACT OF THE "STEEL COLLAR" REVOLUTION AND ROBOTICS UPON HIGHER EDUCATION

EDWARD S. TODD, Professor of Business & Management/Executive Director, Center for Management Studies, State University of New York-College at Old Westbury

In an effort to increase work productivity and to compete effectively, U.S. business and industry is investing heavily in robotics and other automated forms of production. White- and blue-collar workers will come face to face with steel-collar substitutes. How can colleges prepare students for rapid business and industrial change? Should curricula be more or less *technical*, more or less *general* and *liberal*? Tentative findings and inferences are presented based upon preliminary work in examining high technology industries—their investments in robotics, their management, and their educational and training requirements. Critical issues for curriculum planning are presented.

HE 016 515

16C CONTRIBUTED PAPERS (traditional)

WILLIAM H. ROSENTHAL (convener), Associate Professor, Michigan State University

FRANK A. SCHMIDTLEIN (facilitator), Assistant to the Chancellor, University of Maryland-College Park

16C(1) AN ANALYSIS OF THE UTILIZATION OF INSTITUTIONAL RESEARCH DATA IN 1982 HIGHER EDUCATION FACULTY LITIGATION

STEVE W. BATSON, Assistant to the President/Director of Institutional Planning, East Texas State University

The purpose of this paper is to familiarize higher education administrators and support personnel with the types and number of faculty cases litigated and reported at state and federal levels during the 1982 calendar year. Each case or group of similar cases is briefly reviewed by stating the facts of the case, underlying legal rationale, data requirements, and the decision of the court. Suggested institutional research studies designed to enable preparation, in advance, for potential litigation have been formulated from this analysis. In addition, the paper includes a brief glossary of pertinent legal terminology and a discussion of legal research methodology.

HE 016 496

16C(2) A COMPARISON OF FUNDING PRIORITIES IN TWO-YEAR INSTITUTIONS WITH AND WITHOUT FACULTY COLLECTIVE BARGAINING

THOMAS A. HENRY, Dean of Development, Cumberland County College
LOYD D. ANDREW, Associate Professor of Higher Education, Virginia Polytechnic Institute and State University

The purpose of this study was to determine if public, two-year colleges with faculty unions differ from colleges without unions in terms of selected institutional characteristics, including certain operating ratios, drawn from the HEGIS data base. Use of the HEGIS data allowed the study to start with a population that included all 926 public, two-year institutions in states that permit collective bargaining. Using operating ratios previously developed by other researchers in studies of institutional viability, it was possible to determine if bargaining has affected institutional viability. The research design involved four analytical procedures: frequency distribution, cross-tabs, cluster analysis, and regression analysis.

16D CONTRIBUTED PAPERS (traditional)

ROBERT A. WALLHAUS (convener/facilitator), Deputy Director for Academic & Health Affairs, Illinois Board of Higher Education

16D(1) NEW SOFTWARE FOR MARKET SEGMENTATION ANALYSIS: A CHI-SQUARE INTERACTION DETECTOR

ROBERT S. LAY, Director of Enrollment Management Research, Boston College

In the last ten years, marketing research has experienced a revolution in statistical methods. As with most revolutions, it has taken some time for the new ways to become recognized as useful and for the supporting technologies to be elaborated. This paper illustrates a new, readily available, chi-square-based procedure that optimally segments a population along the dimension of a desired outcome—application yield in this example. Results are compared to those of older interaction detector techniques and to those of a Multiple Discriminant Analysis model. CHAID is recommended for consideration by any researcher or planner seeking to optimize the use of scarce resources.

HE 016 491

16D(2) AN APPLICATION OF BAYESIAN INFERENCE TO ENROLLMENT FORECASTING

GERALD R. THRASHER, Jr., Director of Institutional Research, University of Maryland-Central Administration

Enrollment forecasting is an integral part of planning. Institutional data may be insufficient to estimate the effects of policy variables, although numerous studies on those variables appear in the literature. Bayesian inference attempts to utilize all available information in order to reduce the amount of uncertainty present in an inferential problem. Bayesian methods are applied to the problem of enrollment forecasting. *A priori* parameter values taken from the literature are combined with data for a large multi-campus institution to illustrate the method.

16E CONTRIBUTED PAPERS (traditional)

RICHARD L. HARPEL (convener), Assistant Vice Chancellor for Academic Affairs, University of Colorado
MARGARET H. ARTER (facilitator), Dean of Instruction, Palo Verde College

16E(1) THE PROTOTYPE CURRICULUM: A METHODOLOGY FOR JUDGING PROGRAM QUALITY BETWEEN COLLEGES AND UNIVERSITIES

JUDITH BALCERSKI, Dean of the School of Nursing, Barry University
ROBERT BLACKBURN, Professor of Higher Education, University of Michigan

After reviewing current methods for assessing program quality, a new technique is introduced—the prototype curriculum. An illustration from nursing follows. Both a breadth measure of liberal education and a depth measure of concentration are constructed and scored for 63 randomly selected colleges and universities of three types. Correlations and a multiple classification analysis with institutional characteristics are run. They show that three variables—college and university type, faculty size, and recency of program adoption—best predict the extent of a program's liberal education. Implications of the method for studies in other fields and at other levels are discussed.

16E(2) ACADEMIC CALENDAR CHANGE—IMPACT ON ENROLLMENT PATTERNS AND INSTRUCTIONAL OUTCOMES

D. R. COLEMAN, Director of Institutional Research & Planning, University of Central Florida
J. R. BOLTE, Associate Vice President for Academic Affairs, University of Central Florida
L. FRANKLIN, Assistant Professor of Statistics, University of Central Florida

A study of ten universities in two states was completed to determine the impact of a change from the quarter to the semester calendar on funding stability, enrollment patterns, and instructional outcomes. A decrease in average student credit hour load and an increase in the percentage of students withdrawing from courses were observed after institutions changed to the semester calendar system. The impact of these factors on institutional funding and on efficiency in terms of student progress toward graduation can be devastating to the institution, state, and student.

HE 016 505

16F/G ADEQUACY OF FUNDING: MODELS APPLIED IN A STATEWIDE STUDY (panel)

EDWARD M. PENSON (moderator), Chancellor, University of Wisconsin-Oshkosh/ Chairman of the committee which produced the report
ROBERT SWANSON, Chancellor, University of Wisconsin-Stout/Member of the committee which produced the report
ELWIN F. CAMMACK, Associate Vice President for Analysis Services and Information Systems, University of Wisconsin System
REUBEN LORENZ, Vice President, University of Wisconsin System

In July of 1982, the Board of Regents of the University of Wisconsin System (two doctoral campuses, thirteen university cluster campuses, and thirteen two-year centers; total enrollment in excess of 160,000) received an analysis of funding over the past ten years. The report, which was drawn up by an appointed committee of chancellors and system staff, used two pragmatic models to illustrate comparative funding declines over the period. The panel (which consisted of two chancellors and two members of system staff) discussed the genesis, methodology, and impact of this report.

16H COMPUTER GRAPHICS (seminar)

DENISE STRENGLEIN (convener), Data Base Coordinator, University of South Florida

GLENN HARRIS (presenter), Director of Information Analysis & Systems, University of Western Ontario

It is often claimed that graphical representation is the most effective way to communicate information. The integration of human resources and technology comes into sharp focus as the demand for a high rate of data collection needs to be matched by human understanding. The human mind is particularly well designed for both the transmission of large amounts of data and for the rapid and accurate interpretation of pictorial information in graphical form. The state of the art of computer graphics and its most effective use was the major theme of this seminar.

16U THE HUMAN CONTEXT OF INFORMATION TECHNOLOGY (panel)

BERNARD S. SHEEHAN (moderator), Professor, Faculty of Management, University of Calgary

JOE L. SAUPE, University Director of Institutional Research, University of Missouri

THALY NILSSON, Vice President for Planning, University of Uppsala

JOHN S. CHASE, Director of Institutional Analysis, University of British Columbia

Many people wonder whether the traditional role of institutional research will endure in the face of change in higher education. AIR has established a presidential commission to answer the question, "What should the role of institutional research be in the higher education environment of the 1980s and 1990s?". The panel members addressed the changing human context of information technology in institutional research. Each speaker brought a differing view of the "traditional role" and, hence, the panel shed some light on whether the changing environment will tend to standardize or further diffuse the role of institutional research.

17A SOUTHERN UNIVERSITY GROUP OF 25 (SUG-25) (special interest group)

JERRY J. BAUDIN (convener), Director of Budget & Planning, Louisiana State University

The session included an open discussion of plans for the fall meeting to be held in Daytona Beach, Florida, on October 26 and 27. Topics and ideas were offered as possible items to be included on the agenda. Survey and data exchanges between members of the group were also discussed.

17B COMMUNITY COLLEGES (special interest group)

W. KEVIN HUNT (convener), Director of Research, Planning & Data Services, Tidewater Community College

This session focused on concerns among community college researchers and planners in AIR; emphasis was placed on increased involvement in AIR, particularly toward publications, paper/panel presentations, professional development workshops, and organizational activities. Participants helped to establish priorities for community college researchers and planners within AIR and to suggest how best these can be accomplished. Also, future direction and organization of the community college SIG were discussed.

17C MAJOR RESEARCH UNIVERSITIES (special interest group)

MARK MEREDITH (convener), Director of Management Information Exchange & Analysis, University of Colorado-Boulder

Participants shared and discussed current developments of interest among major research universities, focusing upon comparative trends, common problems, suggested solutions, and forecasts for the future.

17D UNIVERSITIES AND NONPROFIT INSTITUTIONS STUDIES GROUP (special interest group)

PENNY D. FOSTER (convener), Study Director, National Science Foundation

The convener made a brief presentation showing results from four National Science Foundation (NSF) surveys of academic science and technology resources and discussed several policy issues that lend themselves to quantitative analysis through examination of the data base. Participants were encouraged to consider additional innovative uses of the existing tapes for institutional comparisons, trend analyses, and current status reports. Future program plans were also discussed.

17E TRADITIONALLY BLACK COLLEGES AND UNIVERSITIES (TBCU) (special interest group)

CHARLES I. BROWN (convener), Associate Professor of Education, Fayetteville State University

Following a short business meeting, several "nuts and bolts" presentations were made, citing examples of ways in which human resources and technology problems are being faced on these TBCU campuses.

17/18 F/G CANADIAN SIG (special interest group)

THELMA G. LUSSIER (convener), Director of Institutional Analysis, University of Manitoba

This session featured discussion by representatives from selected institutions who outlined the extent of declining resources at their institutions and measures that have been instituted to deal with the effects of the decline. This was followed by a general discussion on this topic, leading to a cross-country check-up on the state of higher education in Canada from a regional point of view. Following the session, participants gathered at Hart House on the University of Toronto campus for dinner. Guest speaker, Jim Parr, chairman of TV Ontario, spoke on the subject, "Would Institutional Research Have Saved the Dinosaur?".

17R ASSOCIATED GROUPS (open hearing)

OSCAR T. LENNING (chair), Associated Groups Committee Chair/Academic Dean, Roberts Wesleyan College

The Associated Groups Committee explored ways that AIR can assist associated institutional research groups and gathered reactions to its proposals for changes in the Association's support program. This session provided interested individuals and groups with an opportunity to raise questions, to share their views, and to make suggestions.

18B CALIFORNIA ASSOCIATION FOR INSTITUTIONAL RESEARCH (CAIR) (special interest group)

RONALD A. LEE (convener), Director of Educational Resources, Planning & Research, California State University-Long Beach

California institutional researchers met and proceeded to a local restaurant for a social hour and dinner.

18C TEXAS ASSOCIATION FOR INSTITUTIONAL RESEARCH (TAIR) (special interest group)

JOSEPH J. SZUTZ (convener), President of TAIR/Director of Research, Texas College & University System

Texas institutional researchers met and then went to a local restaurant for a social hour and dinner. There was an opportunity to meet new institutional research officers, to discuss institutional research and planning at Texas institutions, and to discuss TAIR business. A commemorative gift was presented to Vicki Mason, immediate past president.

18Z GRADUATE STUDENTS IN INSTITUTIONAL RESEARCH (special interest group)

JULIA DUCKWALL (convener), Graduate Student, Florida State University

Current graduate students and recent former graduate students gathered over wine and cheese to discuss topics of general interest. Past presidents, distinguished AIR members, and heads of higher education department/centers were also invited to give graduate students a chance to meet and informally talk to AIR members in the field.

20T AIR ANNUAL BUSINESS MEETING (general session)

WILLIAM F. LASHER (chair), AIR President

(The minutes of this meeting begin on page 122.)

21T FORUM ADDRESS: TECHNOLOGICAL INNOVATION AND STRATEGIES FOR INVESTING IN HUMAN CAPITAL (general session)

EDWARD K. DesROSIERS (chair), Forum Local Arrangements Chair/Director of Research, Council of Ontario Universities

SHELDON LEVY (introduction), Associate Vice President (Management Information & Planning), York University

H. IAN MACDONALD (speaker), President, York University/Chairman, IDEA Corporation

(The text of this Forum address begins on page 8.)

22A CONTRIBUTED PAPERS (authors' roundtables)

ROBERT C. HUGHES (convener), Statistical Analyst, Institutional Analyst, McMaster University

22A(1) INFLUENCES ON STUDENTS' PERCEPTIONS OF THEIR PERSONAL DEVELOPMENT DURING THE FIRST THREE YEARS OF COLLEGE

PATRICK T. TERENZINI, Director of Institutional Research, State University of New York-Albany

CHRISTOS THEOPHILIDES, Assistant for Institutional Research, State University of New York-Albany

WENDELL G. LORANG, Associate Director of Institutional Research, State University of New York-Albany

This study assessed whether the students' reported rates of personal development vary over the first three years of college and whether the influences on that development are different from one year to another. After controlling for students' pre-college characteristics, their level of involvement in the social life of the campus and the quality of their informal contact with faculty members were found to be the most important predictors of reported personal growth. Students' experiences in each of the first three years of college were significant influences on personal development.

22A(2) IMPROVING FACULTY USE OF STUDENT OUTCOMES INFORMATION: AN EMPIRICAL STUDY

SIDNEY S. MICEK, Director, Division of Educational Development, Counseling & Administrative Studies, School of Education, Syracuse University

This paper summarizes the results of an empirical study designed to examine whether faculty commitment to and use of student-outcomes information, collected through the use of survey questionnaires administered on an institution-wide basis could be improved as a result of faculty participation in identifying the student information needed and in helping develop the questionnaires to be used. The study was conducted at two colleges, with two groups of faculty selected in each college. One group in each college participated in the information-identification and questionnaire-development process; the other group did not participate. Interviews with faculty members were conducted, after faculty in both groups received the survey reports, to determine commitment to and use of the survey information gathered. Results suggest that participation did have a significant impact on commitment and use. They also suggest practical implications for institutional researchers interested in achieving this end.

22B CONTRIBUTED PAPERS (traditional)

WAYNE K. STAHL (convener), Director of Institutional Research, College of Lake County

IRA W. LANGSTON (facilitator), Coordinator of Research & Testing, University of Illinois

22B(1) DECISION MAKING AND THE USE OF COMPUTER-BASED INFORMATION SYSTEMS IN HIGHER EDUCATION: SOME RELEVANT ORGANIZATIONAL AND PERSONAL FACTORS

JACK R. FARRELL, Director of Institutional Research, Fort Hays State University

A national survey of top financial decision makers at institutions with access to one of five computer simulation models designed for higher education was conducted in the summer of 1981. More than 1300 questionnaires were sent to administrators at institutions with access to EFPM, RRPM, CAMPUS, HELP/PLANTRAN, or SEARCH. Multiple regression models were developed using numerous personal and organizational variables to explain (1) the use or disuse of computer-generated information in financial decision making, (2) individual confidence in the information generated by the computer simulation models, (3) the attitude toward the use of a specific model at respondents' institutions, and (4) the attitude toward the use, in general, of computer simulation models as aids to financial decision making in higher education.

22B(2) FULFILLING THE UNIVERSITY MISSION THROUGH A COMPUTER-BASED CAREER INFORMATION SYSTEM

ROBERT O. MICHAEL, Special Project Coordinator, Georgia Career Information System, Georgia State University

KAY L. SHAFFER, Assistant Director, Georgia Career Information System, Georgia State University

Computer technology has been applied to a wide range of activities reflecting the three-fold university mission of teaching, research, and service. Through the use of a computer-based career information system, the mission activities can be expanded to meet the needs of current and potential university constituents. The career information system and its delivery areas and activities are analyzed through the Reduction Model, a general systems model developed for evaluating program attrition patterns. This analysis creates a matrix of questions directed toward identifying existing and potential information and services which can be provided by the career information system in cooperation with a wide range of university personnel.

HE 016 488

22C CONTRIBUTED PAPERS (traditional)

JAMES W. FIRNBERG (convener), Director of Institutional Research, Louisiana State University System

A. KAY STAUB (facilitator), Director of Institutional Research, University of Alabama

22C(1) GOAL SETTING: THE ROLES INSTITUTIONAL RESEARCHERS PLAY, AND THEIR USE OF DATA BASES AND TECHNOLOGICAL AIDS

S. V. MARTORANA, Professor of Higher Education/Research Associate, Pennsylvania State University

EILEEN KUHNS, Coordinator of Education Administration, Catholic University of America

A 1981 survey of AIR members included a 114-item taxonomy of institutional research activities. Goal setting was the seventh most frequent institutional research activity cited. This paper reports on a further study, conducted in 1982, which focused on (1) the actual roles of institutional researchers in the overall goal setting and monitoring process, (2) the methods used in their organizational frameworks to set and monitor goals, and (3) the use of data bases and new technology (computer models and planning aids, information retrieval systems, national data bases, etc.) as support mechanisms for assessment of institutional performance.

HE 016 512

22C(2) POLITICAL PROCESSES IN AN ACADEMIC AUDIT: LINKING EVALUATIVE INFORMATION TO PROGRAMMATIC DECISIONS

THOMAS R. COCHRAN, Assistant Vice Chancellor for Academic Affairs, University of North Carolina-Asheville

DENNIS D. HENGSTLER, Director of Institutional Research, University of North Carolina-Asheville

This paper discusses the political processes involved in an academic program evaluation. Specifically, the paper focuses on how evaluative information is linked to programmatic decisions within the context of various organizational and evaluative utilization models. Data experiences from a program evaluation conducted at a small (N=2500 students), public, liberal arts university in the Southeast is used in examining the explanatory power of the various theories and models.

HE 016 487

22D CONTRIBUTED PAPER (traditional)

CLINITA A. FORD (convener), Director of Title III Programs, Florida A&M University

FRANK FRIEDMAN (facilitator), Director of Institutional Research, Vincennes University

22D(1) ADMISSIONS MARKETING RESEARCH FOR A PRAGMATIST

GARY O. MODEN, Director of Institutional Research, Ohio University

The purpose of this paper is to describe an admissions marketing research project that was extremely useful in developing recruitment strategies. The analysis of the study was done by geographical, college, and sex subgroupings and produced extremely interesting results. The study also led to many changes in the recruitment and admissions programs.

22E CONTRIBUTED PAPERS (traditional)

JOSEPH G. ROSSMEIER (convener), Director of Planning Research & Management Services, Northern Virginia Community College

SISTER ANN CARMEL LUCIANO (facilitator), Assistant Professor of Mathematics, Western New England College

22E(1) USE OF THE AUTOMATIC INTERACTION DETECTOR IN MONITORING FACULTY SALARIES

MARGARET K. COHEN, Assistant to the Provost for Institutional Research, George Washington University

Institutions must be able to provide information on the equity of faculty salaries. If the characteristics of the faculty at different salary levels can be identified, then it is possible to determine whether or not a pattern of bias exists in the overall salary structure. The Automatic Interaction Detector (AID) segments a total group into mutually exclusive subgroups by the variables which explain the largest significant differences in a stated dependent variable. By using salary as the dependent variable and various attributes of the faculty as the independent variables, the AID can identify characteristics of the faculty who are paid at different levels. Since the mean of each final group is the predicted value of the observations in the group and since the AID supplies the normal residuals for each observation in the final groups, individuals whose salaries are high or low for their groups can be identified for review. This paper describes one university's use of the AID to determine whether or not faculty salaries are equitable.

HE 016 518

22E(2) THE USE OF COMPUTATION DIAGRAMS AND NOMOGRAMS IN HIGHER EDUCATION

RICHARD K. BRANDENBURG, Assistant Professor, School of Packaging, Michigan State University
WILLIAM A. SIMPSON, Associate Professor, Michigan State University

Within higher education circles, the effectiveness of graphical displays for presenting information to a general audience is well recognized. It is not, however, apparent that many researchers are aware of the value that graphs have when used as computational devices—a usage that is common within many engineering and physical science fields. The purpose of this paper is to demonstrate, with specific examples, how graphs can be used to condense and visually display complex relationships among many interacting variables and quickly to make calculations that are commonly dealt with by institutional researchers. Often these computational diagrams may be generated by complex computer simulations. The paper shows how such graphs can be used within planning sessions much in the style of an interactive computer model to immediately answer the "what if" questions that arise. The technique of constructing such computational graphs (and nomograms) is presented.

HE 016 483

22F/G COMMUNITY NEEDS ASSESSMENT: LESSONS FROM THE PAST (panel)

JANA B. MATTHEWS (moderator), Director, Direct Assistance Program, National Center for Higher Education Management Systems (NCHEMS)
JACK KRAKOWER, Senior Research Associate, National Center for Higher Education Management Systems (NCHEMS)
JOHN GRANITO, Vice President for Public Services & External Affairs, State University of New York-Binghamton
DAVID GOMEZ, Assistant to the President, Hostos Commmunity College
DENNIS VERITY, Director of Development & Institutional Research, St. Louis Community College

This panel discussion was designed to explore the methodological, procedural, technical, and logistical considerations essential to carrying out a community needs assessment. Discussion was based on panelists' experiences doing needs assessments for community colleges and universities around the country. Included among the topics reviewed were (1) the goals and objectives of needs assessment activities, (2) gathering needs assessment data, and (3) using needs assessment information.

22H ECONOMIC THEORY (seminar)

JAMAL HASSAN (convener), Manager of Planning, Ministry of Consumer & Commercial Relations, Government of Ontario

MAX von ZUR-MUEHLEN (presenter), Coordinator of Research for the Education, Science, & Culture Division, Statistics Canada

Current trends in Canadian higher education were presented in the first half of the seminar. Economic, demographic, and financial variables were used to give a country-wide portrait. Differences among regions in Canada and the reasons for such differences were also discussed. The second half of the seminar was devoted to questions and answers, covering such topics as enrollment forecasts, profiles of faculties in Canadian universities, recent trends in funding from federal and provincial governments, effectiveness of the "education lobby" in dealing with government agencies, and impact of immigration on higher education in Canada.

22U IMPROVING RESOURCE DEVELOPMENT AND ALLOCATION DECISIONS THROUGH RESEARCH ON INSTITUTIONAL IMPACT (panel)

RICHARD L. ALFRED (moderator), Professor of Higher Education, University of Michigan

PAUL WING, Coordinator of Postsecondary Research, Information Systems, & Institutional Aid, New York State Education Department

MARVIN W. PETERSON, Professor/Director, Center for the Study of Higher Education, University of Michigan

GERLINDA S. MELCHIORI, Director of Research & Administration, University of Michigan

The study of institutional impact will become an increasingly critical area of research inquiry in colleges and universities in the 1980s and 1990s. Impact data—defined as a reciprocal process involving (1) the total of benefits produced by a college in relationship to student, business, and governmental constituencies, and (2) the aggregate of policies, programs, and needs generated by external agencies that shape the flow of resources to the college—can be used to improve resource development and allocation decisions by college faculty and administrators. This panel presentation examined different modalities of impact produced by colleges and universities and the linkage of these impacts to resource decisions by federal, state, and local agencies.

HE 016 499—"The Impact of Higher Education: An Analysis of the Research," by Gerlinda S. Melchiori and Nancy Nash

24A CONTRIBUTED PAPERS (authors' roundtables)

F. CRAIG JOHNSON (convener), Professor of Education, Florida State University

24A(1) FACULTY WORK DISSATISFACTIONS AND THEIR CONCERN FOR QUALITY

ALICE L. BOBERG, Assistant Professor of Education, University of Calgary
ROBERT BLACKBURN, Professor of Higher Education, University of Michigan

This study examines the sources of faculty work dissatisfaction in United States colleges and universities. Five personal and three environmental factors emerged from 1096 faculty questionnaire responses. Two accounted for most of the variance when regression analyses were run. These were "quality" (student competency, peer performance, administrative capability) and "pessimism" (external respect for the profession). The results held irrespective of age, sex, rank, security (tenure), and type of institution. (Some exceptions obtained.) More dissatisfaction was expressed with place of employment than with the career. Implications are discussed.

HE 016 494

24A(2) FACULTY TURNOVER IN HIGHER EDUCATION INSTITUTIONS

WILLIAM C. WEILER, Associate Director, Management Information Division, University of Minnesota

Salaries of faculty members in higher education institutions fell by 21%, in real terms, in the 1970s and also fell relative to professional and technical salaries in private industry. Continuation of these trends will provide labor market conditions encouraging current faculty members to search for alternative employment. In this paper, the parameters of an economic model of faculty quit behavior, using data from a single institution, are specified and estimated. The results can be used to predict quit probabilities for individual faculty members as a function of the salary policy at the institution and salary offers from other employers.

24B CONTRIBUTED PAPERS (authors' roundtables)

LINDA K. PRATT (convener), Associate Director for Research & Evaluation, North Carolina Central University

24B(1) USE OF STUDENT EVALUATIONS TO IMPROVE INSTRUCTION

RICHARD M. BINGMAN, Program Associate in Higher Education, Mid-Continent Regional Educational Laboratory

The paper describes a pilot project designed to more effectively link instructional improvement to student evaluation. The project, on the campus of the University of Missouri at Kansas City, focused on 25 graduate teaching assistants (GTAs) having full instructional responsibilities. A pre-post (expost facto) experimental design was utilized to compare student evaluations for 12 GTAs within and outside the project over the period of one year. The results showed the treatment was effective for reaching six of seven objectives. Implications and future issues for colleges and universities using student reactions in general staff improvement, peer-tutorial, and supplemental programs are discussed. A manual better linking evaluation and instructional improvement was produced.

HE 016 504

24B(2) USING ADMINISTRATIVE DATA AS UNOBTRUSIVE INDICATORS OF TEACHER PERFORMANCE

JAMES E. GREENE, Jr., Registrar, Georgia State University
JAMES E. PRATHER, Senior Research Associate, Institutional Planning, Georgia State University
JOSEPH S. STURGEON, Management Information Specialist, Office of the Registrar, Georgia State University

There has been much debate about the validity and reliability of evaluating the performance of teachers in college classrooms. This paper presents an unobtrusive indicator of teacher performance that may prove helpful in this debate. The indicator is the degree to which teachers develop a following among students as measured by how often students return to teachers for additional courses. The indicator can be derived from available administrative data. It is concluded that such data, when used in conjunction with other evaluative methods, can be a valuable resource.

HE 016 514

24C CONTRIBUTED PAPERS (authors' roundtables)

GARY O. MODEN (convener), Director of Institutional Research, Ohio University

24C(1) EVALUATING THE RELIABILITY OF INDICES FROM IEP

GERALD W. McLAUGHLIN, Associate Director of Institutional Research, Virginia Polytechnic Institute and State University
WILLIAM R. FENDLEY, Jr., Associate Director of Institutional Research, Virginia Polytechnic Institute and State University
WAYLAND H. WINSTEAD, Assistant Director of Institutional Research, Virginia Polytechnic Institute and State University
JAMES R. MONTGOMERY, Director of Institutional Research, Virginia Polytechnic Institute and State University
ALVIN W. SMITH, Assistant Director of Institutional Research, Virginia Polytechnic Institute and State University

A log-linear method is developed to estimate the consistency and stability of unit costs and productivity ratios from the Information Exchange Procedures (IEP) of NCHEMS. Estimates are based on two years of data from two public research universities operating under the same state reporting procedures. These measures of reliability are related to size of the units on which the indices are calculated. Results are also related to the stability of the results from a single sample analysis such as IEP (Kline and McClintock, 1953). This is a first step toward an empirically based understanding of the reliability of indices when used with complex software systems.

HE 016 510

24C(2) GENERAL PRICE INDEXES AND THE INSTITUTIONAL EXPERIENCE

JOHN S. SCHOTT, Prinipal Analyst, Institutional Research & Planning, University of Kansas
DEBORAH J. TEETER, Director of Institutional Research & Planning, University of Kansas

General price indexes have been used extensively to support requests by institutions of higher education for additional funding. This study contrasts the historical price trend experiences of a specific institution with the Higher Education Price Index, focusing on the extent of price trend difference and the implications of such difference in financial and political outcomes.

24D CONTRIBUTED PAPERS (authors' roundtables)

WERNER LENDENMANN (convener), Associate Vice Chancellor for Planning, University of California-San Diego

24D(1) INSTITUTIONAL RESEARCH—A FUNCTION IN SEARCH OF ITS ROLE

LOREN GOULD, Director of Institutional Research, Worcester State College

Institutional research is a higher education function that lacks a clearly defined role. A recent study that used both a formal survey instrument and a follow-up telephone call demonstrated the lack of consensus as to the role that institutional research plays in higher education. Institutional research tends to be a second or third assignment, commonly associated with another function such as planning. With increasing demand for accountability to external agencies, it seems that the role of institutional research has reached a crossroads where it must become a distinct function or be permanently subsumed under other fields.

24D(2) DEVELOPMENT OF A PLANNING AND INSTITUTIONAL RESEARCH SUBSYSTEM AT GRAMBLING STATE UNIVERSITY

HAROLD W. LUNDY, Executive Director of Planning & Institutional Research, Grambling State University
BOBBY DAVIS, Coordinator of Planning & Analysis/Associate Professor of Marketing, Grambling State University

This paper discusses why and how Grambling State University (GSU), a national and internationally known institution with a current enrollment of 3970 students, proceeded to develop and implement a planning and institutional research subsystem. The paper uses a case study approach in explaining the two primary aspects of the subsystem: (1) Grambling Institutional Data System (GRIDS) and (2) Simulation and Forecasting Models. The paper suggests that an institution can assure its success in developing a planning and institutional research subsystem by commencing the project with a carefully prepared design document and by implementing a simple version of the system at the outset. Lastly, the paper discusses how GSU has improved the allocation of the institution's available resources.

(Note: This paper was not presented and was unavailable at the Forum because of customs problems, but it is available through ERIC.)

HE 016 529

24E CONTRIBUTED PAPERS (authors' roundtables)

ROBERTA D. BROWN (convener), Vice President for Planning, Arkansas College

24E(1) DOES FEDERAL FUNDING MAKE A DIFFERENCE? THE IMPACT OF FEDERAL FUNDING AND OTHER FACTORS ON THE PRODUCTION OF SPECIAL EDUCATION TEACHERS

BARBARA JOHNSTON, Educational Consultant, Winchester Public School (Virginia)
LOYD D. ANDREW, Associate Professor of Higher Education, Virginia Polytechnic Institute and State University

This study utilized four different statistical techniques (cross-tabulation, linear regression, cluster analysis, and canonical analysis) to develop a profile of institutional characteristics in relationship to productivity as measured by enrollments and graduation of students in the special education field. Though there has been extensive speculation in the sociological and administrative disciplines concerning those organizational and institutional characteristics which affect institutional responsiveness, until recently there has been insufficient data on a sufficiently large number of institutions to provide the statistical controls necessary to determine the effects of size, control, mix of disciplines, funding levels and sources on institutional responsiveness. This is the second known study which has used the HEGIS data to examine factors affecting organizational behavior in relationship to market demand.

24E(2) POLICY ANALYSIS IMPLICATIONS OF A MODEL TO IMPROVE THE DELIVERY OF FINANCIAL AID TO DISADVANTAGED STUDENTS

ROBERT H. FENSKE, Professor of Higher Education, Arizona State University
JOHN D. PORTER, Associate Director of Management and Financial Analysis, Arizona State University

This paper (1) describes the development of a computer model to improve the delivery of financial aid to disadvantaged students and (2) explores the significant policy implications of operating the model. The model remedies certain inequities caused by present delivery systems of campus-based student financial aid programs at most institutions. In operation, the model corrects the imbalance of student financial aid to groups of qualified students. Those from certain disadvantaged backgrounds often fail to receive aid because they do not meet application deadlines. Policy implications arise when improvement of financial aid delivery to one group tends to increase the shortfall of other groups. These policy implications can have serious public relations and equity consequences for the institution.

HE 016 492

24F CONTRIBUTED PAPERS (authors' roundtables)

PAMELA J. ROELFS (convener), Research Associate, Institutional Research, University of Connecticut

24F(1) MULTIPLE SCENARIOS IN HIGHER EDUCATION

RICHARD B. HEYDINGER, Assistant to the Vice President for Academic Affairs, University of Minnesota

Multiple scenarios are increasingly being used as one of a number of effective techniques in the "tool box" of strategic planners. This paper delineates the assumptions underlying the use of scenarios, develops five potential scenarios for higher education, and discusses the planning issues which emerge from each.

HE 016 526

24F(2) IMAGES OF TERTIARY COURSES: A MULTIDIMENSIONAL SCALING STUDY

BARRY J. CAMERON, Registrar, Darling Downs Institute of Advanced Education (Australia)

M. P. McFARLANE, Head, Centre of Applied Research Methodology, Darling Downs Institute of Advanced Education

The paper reports on segmentation of preference data for applicants for undergraduate study in 1982 and 1983 through the Queensland Tertiary Admissions Centre, Australia. The segmentation analyses are related to image analysis of institutions' science, engineering, and business courses using multidimensional scaling on perceptual data reported by high school graduates and school counsellors. Implications for strategic marketing and planning by tertiary institutions are discussed.

24G CONTRIBUTED PAPERS (authors' roundtables)

AARON DONSKY (convener), Director of Institutional Research & Development, Lakeland Community College

24G(1) EVALUATION OF OPEN ACCESS VERSUS SELECTED ADMISSION TO THE NURSING PROGRAM IN A COMMUNITY COLLEGE

MADAN CAPOOR, Director of Research & Planning, Middlesex County College

The study compares the effects of open admission versus selected admission policies on the outcomes of a nursing program in a community college and illustrates how program evaluation can be used to provide information for program planning. Extensive data on students who entered the program in the last six years was used to examine the relationships between cognitive and noncognitive preadmission variables and program outcomes. These relationships were utilized to compare the effects of open admission and selected admission, and appropriate recommendations for changes in the admission policy were made.

HE 016 517

24G(2) METHODOLOGY AND ALGORITHM OF THE APPLICATION OF A FORMULA FOR DETERMINING BUILDING RENEWAL RESOURCE REQUIREMENTS

JACK SANDERS, Space Administrator, Eastern Illinois University

RICHARD LIU, Director of Planning & Budget Analysis, Eastern Illinois University

This paper deals with the methodology and algorithm of determining the amount of funds required annually for building renewal, using buildings' ages, gross square feet, current values, and replacement points as factors. Although the examples which are presented use the buildings of a public university, the methodology and algorithm can be applied to private institutions or industries as well.

24H MICROS VERSUS MINIS AND MAINFRAMES: TOWARD SENSIBLE CHOICES OF COMPUTING HARDWARE FOR INSTITUTIONAL RESEARCH OFFICES AND THEIR INSTITUTIONS (symposium)

PATRICK T. TERENZINI (moderator), Director of Institutional Research, State University of New York-Albany

E. MICHAEL STAMAN (presenter), Senior Principal Consultant, Systems and Computer Technology, Inc.

GREG B. FAWCETT (presenter), Director of Program Analysis, University of Michigan

DANIEL A. UPDEGROVE (presenter), Director of Planning Model Activities, EDUCOM

Higher education, like society at large, faces a revolution in information processing that some believe will rival in impact the introduction of moveable type in the fifteenth century. Institutional researchers are certain to be among those who must deal with the effects of this revolution on their campuses, both as users of a rapidly changing computer technology and as likely members (if not leaders) of committees developing longer-range campus strategies for increasing the institution's computing capabilities. This symposium (1) provided a brief overview of the micro, mini, and mainframe technologies and capabilities, (2) described the factors that institutional researchers at large and small institutions need to consider in order to choose wisely among a variety of hardware solutions to immediate and pressing institutional research needs for computing support, and (3) suggested what institutional research people should know as they participate in campus-wide efforts to plan strategies for meeting future institutional computing needs. Presenters also suggested ways to avoid or minimize potential conflicts between steps taken to satisfy immediate needs and designs for meeting long-range computing needs.

24U PLANNING AND IMPLEMENTING HUMAN RESOURCE CHANGE FOR NEW TECHNOLOGIES (panel)

FOSTER S. BUCHTEL (moderator), Executive Assistant to the President/Secretary of the Board of Trustees, University of Akron

PHILIP WINSTEAD, Director of Institutional Planning & Research, Furman University

JOHN A. SEELEY, Senior Associate & Principal, Formative Evaluation Research Associates, Inc.

Although the need for planned change which integrates technological change with human resource development is apparent for higher education, colleges and universities have been slow in effecting change. A promising development is the growing interest in planned-change strategies with potential for human/technological change integration. Panelists representing a comprehensive public university, a small private university, an evaluation research firm, and an international "think tank" described successful planned-change programs in which they have been involved. Opportunity was provided for institutional researchers and planners to understand better their critical role in the planned-change process and human/technological advancement. Jon Olson, a research assistant with the Battelle Human Affairs Research Center, was unable to participate on the panel, but his remarks were read.

25A CONTRIBUTED PAPERS (authors' roundtables)

HELEN M. GRADISAR (convener), Director of Institutional Research, Carlow College

25A(1) A CASE STUDY OF QUALITATIVE RESEARCH: METHODS AND ADMINISTRATIVE IMPACT

JANE M. SCHOEN, Director of Research, Union for Experimenting Colleges and Universities
SEAN WARNER, Assistant Dean, Union for Experimenting Colleges and Universities

Over a five-year period, this institution has offered a baccalaureate program to employees of a local division of a national manufacturing business. The institutional research office was asked to conduct an evaluation study of the impact of the degree program on graduates and to assess employer benefits from the degree program. The academic programs were individually designed, monitored, and executed using institutional and business resources and stressed job relevance and acquisition of job-related skills in the context of a liberal arts education. The research office examined student products, developed and administered a questionnaire, and interviewed graduates, their supervisors, and resource faculty within the firm. Qualitative methods were found to be appropriate for this study. Administrative outcomes include generation of material which increased visibility within the organization and which related directly to student recruitment.

HE 016 527

25A(2) A NEW TACK FOR AN OLD TECHNIQUE: THE OPINION POLL ON CAMPUS

BARBARA PASCHKE, Principal Research Analyst, Institutional Research & Planning, University of Kansas

In today's uncertain economic climate, the information required to make administrative decisions is a valued commodity as colleges and universities struggle to provide quality programs and services within reduced or severely strained budgets. When direct feedback from students will assist with management decisions, a growing number of campuses are developing new reliance on an old technique—the opinion poll. By combining resources and expertise, polling programs can provide a cost-effective method for gathering information. The background and function of these programs is discussed, with suggestions for their development and implementation.

HE 016 486

25B CONTRIBUTED PAPERS (traditional)

RUSSELL C. COLLMER (convener), Director of Institutional Research, Pima Community College District
CHARLES C. GILBERT (facilitator), Assistant Director of Institutional Research & Planning, Western Illinois University

25B(1) RETENTION PLAN: ACTION PLANS TO RETAIN TRADITIONAL AND NONTRADITIONAL STUDENTS AT A REGIONAL UNIVERSITY

MYRON J. LONGMORE, Director of Research, Cameron University

An overall retention plan was developed to quantify and qualify the attrition problems and to establish specific courses of action to improve retention for a regional university. The regional university performs both senior university and community college roles. The attrition problems were difficult to identify because of the large number of students who attend college on a part-time basis, who work full time, who attend for purposes other than to graduate, and who depart the area primarily for employment reasons. The methodology and the action plans considered the differing needs of the traditional and nontraditional students.

(Note: Presented by ARTHUR J. FRIDRICH, Researcher, Office of Institutional Research, Cleveland State University)

HE 016 516

25B(2) RETENTION: WHAT HAPPENS DURING THE FRESHMAN YEAR?

MARYANN S. RUDDOCK, Research Associate, Planning & Institutional Research, St. Edward's University
CHERYL Y. WILKINSON, Lecturer, St. Edward's University

With a majority of leavers withdrawing prior to their sophomore year, retention efforts are now focusing on what happens to students during their freshman year, as opposed to studying pre-enrollment characteristics. Second-semester freshmen were surveyed regarding their social and academic perceptions of their freshman year and their degree of satisfaction with various aspects of university life. Results based on intention to return to or leave the university the following fall suggest differences between returners and leavers. Males, undecided majors, and students who do not work are most likely to intend to leave. Differences between the groups also occurred for items which assessed whether or not the university is too religious, whether or not the courses are too easy, and whether or not the catalog had accurately presented university life. Additional analyses compared the responses of students who actually returned for their sophomore year with responses of students who did not.

HE 016 513

25C CONTRIBUTED PAPERS (traditional)

EDWARD A. BRUSS (convener), Director of Institutional Studies, School of Medicine, Case Western Reserve University
ALLAN M. BLOOM (facilitator), Assistant Director of Institutional Research, Virginia Polytechnic Institute and State University

25C(1) A MODEL FOR USER-DIRECTED DEVELOPMENT OF STUDENT INFORMATION SYSTEMS

ANTHONY LOLLI, Jr., Director of Student Information Systems & Research, Cornell University

The importance of an effective, flexible information system is a reality we each live with every day. Unfortunately, the truth of this statement is most apparent when the system fails to provide that which is required. In order to prevent such problems, end users must begin to take the responsibility for directing system development. This paper presents a model for such an activity. Included are discussions of vehicles for conceptual design, detail design and implementation, and policy consideration. The focus for discussion is the process of the development effort rather than the resulting product.

25C(2) A MODEL SIMULATING THE IMPACT OF REAGAN'S STUDENT FINANCIAL AID PROPOSALS ON THE INSTITUTION

JOHN D. PORTER, Associate Director of Management & Financial Analysis, Arizona State University
JOSEPH J. MATT, Assistant Director of Management & Financial Analysis, Arizona State University

The Reagan Administration's proposal to reduce funding for student financial aid programs will significantly impact postsecondary institutions. The major question facing these institutions is determining where the impact will be. This paper describes a model developed at Arizona State University to simulate the effects of Reagan's cuts in student aid in terms of programs and FTE load at the college level. The model allows administrators to simulate the impact of various funding scenarios on the institution. This provides management with a powerful tool to identify the colleges and departments that probably will be hardest hit by the new funding levels.

HE 016 485

25D CONTRIBUTED PAPERS (traditional)

JAMES O. NICHOLS (convener/facilitator), Director of Institutional Research & Planning, University of Mississippi

25D(1) AN ANALYSIS OF THE INSTITUTIONAL, STRATEGIC, AND ENVIRONMENTAL DETERMINANTS OF ENROLLMENT DECLINE

RAYMOND F. ZAMMUTO, Senior Associate, Organizational Studies Program, National Center for Higher Education Management Systems (NCHEMS)
JACK KRAKOWER, Senior Research Associate, National Center for Higher Education Management Systems (NCHEMS)

A model examining institutional, strategic, and environmental factors related to year-to-year changes in college and university enrollments is presented. The results show that environmental factors are the most important contributor to enrollment change for the population as a whole. Analyses by type of institution reveal that the specific factors affecting enrollments vary significantly by type of institution. These findings suggest that, when experiencing declining enrollments, different retrenchment strategies are required for different types of institutions. The discussion also suggests that this type of model could be used by institutional researchers to simulate enrollment change under different environmental and institutional conditions. Such simulation would increase the ability of administrators to develop contingency plans for alternative futures.

25D(2) MEASUREMENT FOR DECISION SUPPORT

BERNARD S. SHEEHAN, Professor, Faculty of Management, University of Calgary

In order to explore possible impacts of changing information technology on the role of the decision support intermediary (that is, the institutional research analyst) three institutional research foundations (measurement, human information processing, and decision support technology) are examined. The results of surveys of institutional research directors at Canadian and United States universities indicate high levels of information technology implementation, including perceptible use of decision support systems on at least one-third of the campuses. The paper concludes that the role of the intermediary is probably not threatened by existing information technology but that the intermediary should expand traditional activities to include aid for management's user-driven computing for decision support.

25E CONTRIBUTED PAPERS (traditional)

ERIC A. HILLMAN (convener), Director of Institutional Analysis, University of Calgary
ELIZABETH F. FOX (facilitator), Director of Institutional Research, University of Alabama-Birmingham

25E(1) THE EFFECT OF MAJOR FIELDS OF STUDY ON STUDENT DEMAND FOR LIBRARY BOOKS

RALPH E. RUSSELL, University Librarian, Georgia State University
JOSEPH S. STURGEON, Management Information Specialist, Office of the Registrar, Georgia State University
JAMES E. GREENE, Jr., Registrar, Georgia State University
JAMES E. PRATHER, Senior Research Associate, Institutional Planning, Georgia State University

Caught between the rising costs of services and materials and the static income of a stagnant economy, university administrators and librarians are concerned that maximum value be gleaned from library acquisition funds. This research examines the use of library collections; specifically, it explores the relationship between major field of study and courses taken and the demand for library books by subject area by students. The research uses the Induced Course Load Matrix (ICLM) as a means of studying the relationship between major field of study and the demand for library books. The results reflect diverse interests among subject majors with specific secondary and tertiary interests identified.

HE 016 511

25E(2) SELF-STUDY OF SUPPORT UNITS TO INFORM INSTITUTIONAL PLANNING

LARRY R. SELIN, Institutional Research Associate, Southwest Missouri State University
LARRY C. GATES, Director of Institutional Research, Southwest Missouri State University

Both in planning and in the related literature, relatively little attention seems to be paid to the study of support units. This study reviews and critiques the self-study of support units in a large regional university that is initiating its first experience with a comprehensive, systematic approach to planning. With the purpose of gaining insights to guide subsequent practice, this study focuses on the ability of support units to conduct self-studies, the questionnaire instrument utilized, and the incorporation of the resulting information into planning decisions.

HE 016 520

25F COMMISSION TO REASSESS THE PURPOSES AND OBJECTIVES OF THE ASSOCIATION (open hearing)

DONALD J. REICHARD (chair), Commission Chair/Director of Institutional Research, University of North Carolina-Greensboro
MEMBERS of the COMMISSION: Frank S. Black, John S. Chase, James W. Firnberg, Robert F. Grose, Stephen R. Hample, Richard B. Heydinger, Paul Jedamus, Lois E. Torrence, Robert A. Wallhaus, Janis H. Weiss, and Robert Winter

This session provided AIR members with an update on the activities of the Commission to Reassess the Purposes and Objectives of the Association which was established by the Executive Committee in September 1982. Members' views on questions relating to the charge to the Commission (included in the packet of annual business meeting materials) were sought in an open hearing format. The Commission will conclude its work by the 1984 Forum.

25G THE USE OF SURVEYS IN INSTITUTIONAL RESEARCH: ISSUES AND INNOVATIONS (panel)

RONALD P. MATROSS (moderator), Assistant Director of Student Support Services, University of Minnesota
MICHAEL J. KELLER, Research Specialist, Maryland State Board for Higher Education
MICHAEL J. VALIGA, Program Associate, Institutional Services, American College Testing Program

The use of surveys to support decision making has increased dramatically in both the public and private sectors. At the same time, survey technologies have been changing rapidly, and the limitations of survey methods have come under increased scrutiny. The panelists considered issues in the selection of survey methods and the use of survey findings in higher education. Included were discussions of recent innovations in polling technologies, the use of standardized survey instruments versus locally developed questionnaires, examples of uses and misuses of survey findings, and promising directions for developing cost-effective survey research programs.

25H PROGRAM REVIEW (seminar)

DANIEL R. COLEMAN (convener), Director of Institutional Research & Planning, University of Central Florida
CHARLES H. BELANGER (presenter), Director of Institutional Research, Université de Montréal
LEONARD KAIL (presenter), University Secretary, University of Surrey
WILLIAM A. SIMPSON (presenter), Associate Professor, Michigan State University

Institutional researchers confront some new issues when financial exigency requires the reduction of tenured faculty members, clerical staff, optional courses, research activities, and service obligations. Among the issues are these: safeguarding quality rather than seniority, measuring research productivity, establishing a rationale for selective program reductions, recouping teaching resources from all degree programs, and protecting the rights of non-tenured faculty and staff. At a recent meeting of the National Association of State Universities and Land-Grant Colleges, 99 of the 100 presidents attending a special session reported cuts in their university's budget; some presidents reported being in a fourth year of cuts. A prolonged reduced revenue expectation has significant consequences for academic program quality.

25U FINANCIAL SELF-ASSESSMENT: DATA SHARING AT INDEPENDENT UNIVERSITIES (panel)

JOHN A. DUNN, Jr. (moderator), Vice President for Planning, Tufts University
SUE W. BOLLMANN, Head, Office of Institutional Studies, University of Rochester
DANIEL A. UPDEGROVE, Director, Planning Model Activities, EDUCOM
RHONDA M. GABOVITCH, Systems Analyst, Institutional Research, Brown University

Attempts to compare financial and other data with peer institutions for better understanding of one's own position are often frustrating, costly, and less than fully satisfactory because of the lack of common data definitions, flexible formats, and easy access. The panelists discussed and evaluated the efforts by several independent universities to overcome these problems through cooperative use of the Higher Education Data-Sharing Service provided by EDUCOM.

26Z SPECIAL EVENT: FORUM BANQUET: MAYFEST—an evening at the Ontario Science Centre

Approximately 450 Forum participants gathered at the Ontario Science Centre for dinner, exhibits/demonstrations, entertainment, and dancing.

28B PACIFIC NORTHWEST ASSOCIATION FOR INSTITUTIONAL RESEARCH AND PLANNING (PNAIRP) (special interest group)

STEFAN D. BLOOMFIELD (convener), Associate Director of Institutional Research, Oregon State University

Northwest institutional researchers gathered to learn of plans for the 1983 PNAIRP conference, as well as to review needs, regional problems, and prospects.

28C SOUTHEASTERN ASSOCIATION FOR COMMUNITY COLLEGE RESEARCH (SACCR) (special interest group)

JANE FAULMAN (convener), Coordinator of Institutional Research, Northern Virginia Community College

Southeastern community college researchers met briefly before joining the SAIR meeting.

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28D USERS OF COMPUTERS (special interest group)

GARY W. GRAFF (convener), Director of College Planning & Research, West Virginia State College

Computer users at this session discussed three topics: developing computer literacy among faculty and administrators on campus; purchasing common or mixed brands of microcomputer equipment, including the problems of software compatibility and mainframe communications; and using data-based systems that are accessible to individual offices and which provide security and data consistency.

28E SOUTHERN ASSOCIATION FOR INSTITUTIONAL RESEARCH (SAIR) (special interest group)

E. MICHAEL STAMAN (convener), Senior Principal Consultant, Systems & Computer Technology, Inc.

The session included a brief business meeting and a panel-audience discussion on ways in which SAIR could better serve its membership. The panel was convened by Elizabeth F. Fox and chaired by James R. Montgomery. Panelists were Margaret L. (Peggy) Moore, Maryann S. Ruddock, and Larry Jones.

28F INSTITUTIONAL RESEARCHERS AND THE COURTS (special interest group)

STEPHEN R. HAMPLE (convener), Director of Institutional Research, Montana State University

This SIG permits a yearly exchange of notes and experiences for those institutional research staff whose data are sometimes used in court cases (e.g., discrimination, retrenchment, or privacy act lawsuits). Better coordination of this group, the possible establishment of a newsletter, information on statistical techniques being used, graphic methods, new areas of litigation, recent court decisions, and book reviews were among topics scheduled for discussion.

30T FORUM ADDRESS: FUTURES: THE EFFECTS OF NEW MICROELECTRONICS (general session)

W. SAM ADAMS (chair), 1983–84 AIR President/Assistant Graduate Dean, University of Wisconsin-Oshkosh

ALEXANDER SCHURE (speaker), Chancellor, New York Institute of Technology/ Chancellor, Nova University

(The text of this address begins on page 14.)

31A CONTRIBUTED PAPERS (authors' roundtables)

STEFAN D. BLOOMFIELD (convener), Associate Director of Institutional Research, Oregon State University

31A(1) THE INTEGRATOR ROLE IN ACADEMIC COMPUTING

ANDREW T. MASLAND, Assistant Professor/Research Associate, Pennsylvania State University

Several decades after the introduction of computing, colleges and universities still struggle to integrate the resource into academic programs. Drawing on the study of the successful implementation of computer technology in the business environment, this paper describes six specific facilitative and technical functions of an "integrator role" for academic computing: (1) missionary, (2) maturation inducing, (3) introductory training, (4) technical consulting, (5) technical translation, and (6) software consulting. Evidence from research at five institutions illustrates the six functions and supports the value of the integrator role.

HE 016 523

31A(2) THE ROLE OF INSTITUTIONAL RESEARCH IN THE DEVELOPMENT AND USE OF ADMINISTRATIVE INFORMATION SYSTEMS

DEBORAH J. TEETER, Director of Institutional Research & Planning, University of Kansas

When higher education administrators are inundated by reams of computer output providing data to support decision making, an information manager becomes a critical link between the producers of the data and the data consumers. This role is increasingly being filled by institutional researchers. This paper describes some of the responsibilities assumed by institutional researchers in their role as information managers and the implications of this role for both administrative computing and institutional research. The paper concludes with a discussion of the need for close cooperation between administrative computing and institutional research and identifies some of the barriers and perceptions which hinder cooperation.

31B CONTRIBUTED PAPERS (traditional)

MARK MEREDITH (convener), Director of Management Information Exchange & Analysis, University of Colorado-Boulder
JAMES L. LITWIN (facilitator), Director of Institutional Studies, Bowling Green State University

31B(1) OPTIMAL ADMISSION POLICY FOR A FOUR-YEAR COLLEGE

ROBERT M. USSERY, Director of Institutional Research, East Carolina University
W. H. COLLINS, Professor of Decision Sciences, East Carolina University
C. B. COLLINS, Professor of Mathematics, East Carolina University
Y. HSU, Professor of Decision Sciences, East Carolina University
L. H. ZINCONE, Chairman of Decision Sciences, East Carolina University

In an earlier study, the authors demonstrated the use of a Markov Chain to determine the demand for students in a four-year college. This demand took the form of an admission policy which would produce a predetermined number of college graduates in the future and at the same time keep the relative sizes of the classes constant while maintaining a specified overall growth rate. In this paper, this idea is applied to the admission policy at a case-study university. In addition, regression analysis is used to determine the supply of potential students which will be provided by the market. The results of the regression analysis are then coupled with the results of the Markov Chain analysis and show the adjustment needed to accommodate the difference between the number of students supplied and the number of students demanded.

31B(2) RETURN OF THE PRE-COLLEGE CURRICULUM: WILL MINIMUM EDUCATIONAL PREPARATION REQUIREMENTS HELP?

RANDALL W. DAHL, Associate Director for Policy Studies, Kentucky Council on Higher Education

This paper is a policy analysis of proposed statewide minimum educational preparation requirements for admission to both two-year and four-year public institutions of higher education. The analysis is based on a statewide study of the high school and subsequent collegiate records of approximately 2000 recent high school graduates. Current levels of compliance with the proposed minimum requirements and the relative importance of specific components of the requirements are examined, differences based on geographical region, type of high school, and selected student characteristics are identified, and policy and planning implications for schools, colleges, and statewide higher education agencies are discussed.

(Note: This paper was not presented but copies were made available.)

31C CONTRIBUTED PAPERS (traditional)

MARILYN K. BROWN (convener/facilitator), Director of Institutional Studies, University of Maryland-College Park

31C(1) INCREASING THE PRECISION OF ESTIMATES IN FOLLOW-UP SURVEYS: A CASE STUDY

SHELDON B. CLARK, Assistant Director, Bureau of Insitutional Research & Planning, University of Mississippi
JAMES O. NICHOLS, Director, Institutional Research & Planning, University of Mississippi

The authors use data gathered in a survey of graduates of a teacher education program to demonstrate the superiority of a stratified random sampling approach, with follow-up, over a one-shot mailing to an entire population. Sampling issues involved in such an approach are considered, particularly with regard to quantifying the effects of nonresponse on the results. Comparisons are made between the two procedures, using the precision of estimates of population characteristics as the criterion. Much narrower confidence bounds were associated with the stratified random sampling approach, even though a smaller number of questionnaires were returned.

HE 016 493

31C(2) ASSESSING THE RELIABILITY OF SURVEY INSTRUMENTS

MICHAEL J. VALIGA, Program Associate, Institutional Services, American College Testing Program

In recent years, college personnel increasingly have utilized survey instruments to collect a variety of data for administrative decision making. Due to this increased usage, the reliability of these instruments has become an important issue at many institutions. Traditional internal-consistency reliability indices (such as KR-20, KR-21, and coefficient α) are often not appropriate for use with these instruments. This paper presents an alternative reliability index based on grouped student data. The statistical approach referred to as Generalizability Theory is employed in determining this index. The technique utilized in the study is suggested as a method of documenting survey reliability at individual institutions.

HE 016 503

31D CONTRIBUTED PAPERS (traditional)

JEAN J. ENDO (convener), Assistant Director of Academic Planning & Analysis, University of Colorado-Boulder
JOHN S. CHASE (facilitator), Director of Analytical Studies, Simon Fraser University

31D(1) UTILIZATION OF PARTICIPATORY ELECTRONIC TECHNOLOGY IN GROUP COMMUNICATION AND DECISION-MAKING PROCESSES

ADRIAN RAY ROBERTS, Associate Professor of Education, North Carolina Central University
DEVENDRA P. GARG, Professor, School of Engineering, Duke University

The focus of the paper is on participatory technological tools which can be utilized in aiding group communication/decision-making processes among various educational groups. Research on the impact of this technology on group planning, decision making, and discussion processes is assessed. A particular example of this type of technology was illustrated in the actual presentation to demonstrate its potential use.

HE 016 530

31D(2) TELECOMMUNICATIONS DEVELOPMENT: THE ROLE OF INSTITUTIONAL RESEARCH

SIMEON P. SLOVACEK, Director of Institutional Research, California State University-Los Angeles

Emerging telecommunications technologies offer colleges and universities enormous potential to restructure and expand their roles. Some institutions are moving rapidly to combine the new technologies with their educational programs in novel ways. Several developments in telecommunications which are being or could be used in education are reviewed, and the roles of institutional researchers in the telecommunications arena are explored. Possible roles include the following: identifying existing resources on campus; conducting market research on the needs of potential users; facilitating telecommunications planning efforts; keeping abreast of developments on other campuses and on cable-franchising activity within the institution's service area. Examples are drawn from efforts of California State University-Los Angeles.

HE 016 497

31E CONTRIBUTED PAPER (traditional)

JANIS H. WEISS (convener), Associate Dean of Instruction, North Hennepin Community College

JOHN BAKER, Jr. (facilitator), Vice President for Planning & Analysis, Alabama State University

31E(1) DISCRIMINANT ANALYSIS APPLIED TO BASIC SKILLS PROGRAMS

RICHARD G. DUMONT, Director, State Board of Regents Basic Skills Pilot Project, Tennessee Technological University

JAMES T. JONES, Research Assistant, Department of Educational Psychology, Tennessee Technological University

The statistical technique of discriminant analysis is applied to selected developmental studies programs within a statewide system of higher education in the southeastern United States in an effort to explore that technique's potential for indentifying those student characteristics (variables) which "discriminate" between those who are successfully remediated as a result of such programs and those who are not. The implications of the findings for better informed policies and decisions regarding program planning, admissions, and advising are also discussed.

HE 016 522

31F QUALITY OF ACADEMIC PROGRAMS: A SEARCH FOR MEANING (panel)

JAMES W. FIRNBERG (moderator), Director of Institutional Research, Louisiana State University System

CAMERON L. FINCHER, Regents Professor/Director, Institute of Higher Education, University of Georgia

DAVID HOLT, Planning Associate/Assistant Professor, University of Virginia

A. KAY STAUB, Director of Institutional Research, University of Alabama

In thinking about the concept of quality, there is a great temptation to list quantifiable traits accompanying the presence of quality and to take for granted that these traits are measurements of quality itself. This is a serious error. As in the past, however, state coordinating and accrediting agencies insist upon quantifying quality because of current technology's ability to store and create quickly vast amounts of statistical information. A repeat of IEP? There is, then, the need to understand the concept of quality before techniques are developed and implemented to measure it. This panel addressed the issues of quality in terms of the concept itself and identified the underlying influences determined by political, educational, and accountability special interests. The intent was to expand the knowledge and understanding of institutional researchers concerning assessments of quality in academic programs.

31G COLLEGES AND UNIVERSITIES AS WORKPLACES (panel)

ZELDA F. GAMSON (moderator), Professor, Center for the Study of Higher Education & Residential College, University of Michigan
MARVIN W. PETERSON, Professor/Director, Center for the Study of Higher Education, University of Michigan
ANN E. AUSTIN, Graduate Student, Center for the Study of Higher Education, University of Michigan
JOAN S. STARK, Dean, School of Education, University of Michigan

This panel considered the topic of colleges and universities as workplaces from both conceptual and applied perspectives. Two panelists provided conceptual frameworks, discussing sociological dimensions as well as environmental and contextual factors affecting the nature of universities as workplaces. A third panelist reported results from a study of the work experience of middle administrators at a major research university, and the final panelist presented a model of commitment to tasks, institutions, and careers, with practical implications for universities as workplaces.

31H PAST PRESIDENTS: REFLECTIONS ON THE PROFESSION (seminar)

BERNARD S. SHEEHAN (chair/moderator), Professor, Faculty of Management, University of Calgary
JOHN E. STECKLEIN (presenter), Professor of Psychology Foundations, University of Minnesota
RICHARD R. PERRY (presenter), Associate Vice President for Academic Affairs, University of Toledo
JOE L. SAUPE (presenter), University Director of Institutional Research, University of Missouri
JAMES R. MONTGOMERY (presenter), Director of Institutional Research, Virginia Polytechnic Institute and State University

Five years ago, the past presidents of the Association addressed the general question of actions needed to advance the profession of institutional research. The specific suggestions included (1) a task force on professional development, (2) a committee of correspondents for international activities, (3) white papers on the qualitative dimension of institutional research, and (4) a committee to support the activities of affiliated groups. All four suggestions have since been incorporated into the activities of the Association. In this session, a group of AIR past presidents suggested ideas for advancing the profession in the following areas: international activities, publications, research, communications, and service to the membership.

31U INGREDIENTS FOR SUCCESS IN INTEGRATED PLANNING FOR COLLEGES AND UNIVERSITIES (panel)

JACK E. FREEMAN (moderator), Senior Vice Chancellor for Administration, University of Pittsburgh
RAYMOND M. HAAS, Vice President for Administration, University of Virginia
O. ROBERT SIMHA, Director of Planning, Massachusetts Institute of Technology

Today's hard times find administrators looking for solutions to their dilemma of managing with limited resources. This panel, composed of nationally respected leaders in the area of integrated planning (that is, processes and management strategies for academic, administrative, facilities, and financial planning within institutions) shared some ingredients of success. Discussion focused upon (1) the elements required, (2) scheduling of planning activities, and (3) building an integrated planning process for the institution. The implications of technology on human resources in the planning arena were demonstrated through examples at panelists' institutions.

32T AWARDS LUNCHEON (general session)

MANTHA V. MEHALLIS (chair), AIR Forum Chair/Director of Institutional Research, Broward Community College

WILLIAM F. LASHER (presentation of awards), 1982–83 AIR President/Associate Vice President for Budget & Institutional Studies, University of Texas-Austin

Nearly 450 persons attended the luncheon where contributions of officers and committees were acknowledged. The Outstanding Service Award was presented to Lois E. Torrence and Distinguished Membership was awarded to Cameron L. Fincher. The traditional past president's plaque was presented to William L. Tetlow. Jeff Holmes regaled the audience with comments about Canada, including these: "If it's Thursday, it must be Canada," and "We have two seasons, Winter and August."

33A CONTRIBUTED PAPER (authors' roundtable)

JANA B. MATTHEWS (convener), Director, Direct Assistance Program, National Center for Higher Education Management Systems (NCHEMS)

33A(1) APPLICATIONS OF A COMPUTER MODELING PACKAGE IN INSTITUTIONAL RESEARCH

MARGE L. FORD, Director of Institutional Research, University of Missouri-Kansas City

MARY P. MARTIN, Institutional Research Associate, University of Missouri

Institutional research is an area of potential for the application of computerized simulation systems. Successful model building requires that the problem can be quantified and that the problem can be broken down into manageable components. Many issues in institutional research fit these criteria well. A model is defined to project tuition and fee revenue based on enrollment measures and rates of tuition and fees. Discussion focuses on the following main areas: (1) using a computerized simulation model in institutional research for forecasting, also using "what if" questions, and (2) exploring the results of selected applications of the model, including the examination of the implications of its use.

33B CONTRIBUTED PAPERS (traditional)

BARRY J. CAMERON (convener), Registrar, Darling Downs Institute of Advanced Education (Australia)

HEATHER J. HABERAECKER (facilitator), Director of Budgets, Northeastern Illinois University

33B(1) EFFECTS OF STATE TAX CAPACITY, TAX EFFORT, AND TUITION ON ENROLLMENTS IN PUBLIC COLLEGES AND UNIVERSITIES

WILLIAM B. ADRIAN, Associate Professor of Educational Administration & Higher Education, Oklahoma State University

ALI NAZARI-ROBATI, Adjunct Assistant Professor of Educational Administration & Higher Education, Oklahoma State University

JOHN J. GARDINER, Associate Professor of Higher Education/Director of Graduate Studies, Oklahoma State University

Changing economic and political parameters at the state level are altering the environments of public colleges and universities. This study examines the enrollments at public institutions in the 50 states, for the years 1975 and 1979, in relation to state tax capacity, tax effort, and tuition level. It was found that these three factors influenced enrollment differently at various types of public institution. Enrollments at community and junior colleges appeared to be more susceptible to changes in economic and political variables than did enrollments at other types of postsecondary institution.

33B(2) THE EFFECTS OF ECONOMIC VARIABLES ON TAKE RATES FOR PREDICTING NEW STUDENT ENROLLMENT

ALAN P. FEDDERSEN, Principal Administrative Analyst, University of California-Los Angeles
DAVID REIFFEN, Research Fellow, Monash University (Australia) (on leave from UCLA)

This university's new enrollment depends on the number of applications it accepts. The number of applications is, in turn, determined by three components: the rate at which applicants are admitted, the rate at which admittees state they will enroll, and the rate at which they actually enroll. The product of these three rates comprises the "take rate." A significant factor related to new enrollment for a university is the effect of economic variables. A model has been developed that tests the relationship between economic variables and the three take-rate components. The model has been used to forecast new enrollees (freshmen and transfers) and was validated with actual outcomes with fair results. The analysis suggests that this model is a useful tool to support forecasting when combined with the use of other information, experience, and judgment.

33C CONTRIBUTED PAPERS (traditional)

TIMOTHY R. SANFORD (convener), Associate Director of Institutional Research, University of North Carolina-Chapel Hill
DEBORAH J. TEETER (facilitator), Director of Institutional Research & Planning, University of Kansas

33C(1) RESTRUCTURING, REALLOCATION, AND RETRENCHMENT AT THE SAME TIME: THE DUTCH UNIVERSITIES

FRANK G. DIJKMAN, Personnel Planning Department, University of Utrecht
BAS S. SAVENIJE, Department of Planning, University of Utrecht

Dutch universities have a tradition of autonomy and an administrative structure characterized by decentralization and democratic procedures. They are now faced with increasing demands of public accountability, with severe budget cuts and strong tendencies towards centralization. Within the University of Utrect, this means the end of a mentality which equated autonomy with isolation. Instead of allocation procedures based on principles of "quantitative justice," planning and budgeting procedures aimed at a critical evaluation and selection of activities have been developed, while decentralized and democratic decision making are maintained. These procedures are discussed, together with the pitfalls and paradoxes encountered in their implementation.

HE 016 509

33C(2) MEASUREMENTS OF QUALITY IN HIGHER EDUCATION: THE ROLE OF INSTITUTIONAL RESEARCH

DEAN KAYE GAPEN, Dean and Professor, University Libraries, University of Alabama
SUZANNE W. MORSE, Planning Assistant, Office of the President, University of Alabama

Quality determinants in higher education have been used to evaluate the effectiveness of programs in meeting set goals and to determine comparative academic advantage relative to other programs. Quality is a subjective measure that must be based on some equitable standard. The comparative advantage of quality programs is difficult to measure because of the requirements of different audiences (e.g., prospective students, granting agencies, accrediting groups). Each of these groups has different criteria for measurement. While criteria differ by type of institution and audience served, there are some common assumptions that must be included in determining quality. In this paper, different quality criteria are reviewed, uses of data collected for quality assessment are discussed, and the uses of students, faculty, finances, and library resources as quality measures are evaluated.

HE 016 525

33D CONTRIBUTED PAPERS (traditional)

BARBARA J. HILLMAN (convener), Academic Analyst, University of Calgary
PAUL JEDAMUS (facilitator), Professor of Management Science, University of Colorado-Boulder

33D(1) INSTITUTIONAL RESEARCH AND END-USER COMPUTING: THE DEVELOPMENT OF AN INFORMATION CENTER

MICHAEL STEVENSON, Director of Research & Computer Education, Mount Hood Community College
R. DAN WALLERI, Institutional Researcher, Mount Hood Community College

An information center brings together fourth-generation computer software, expertise in the use of this software, and the end-user in an effort to increase the productivity of data and information processing. This paper shares guidelines and experiences, drawn from the literature and a case study, for the development of an information center. The focus of the paper is on the role of institutional research in the creation and operation of such a center and the ways in which the spread of information centers within higher education is likely to influence the future development of institutional research.

HE 016 501

33D(2) MARKETING TECHNOLOGY, ENROLLMENT MANAGEMENT, AND STRATEGIC PLANNING: AN INTEGRATIVE MODEL

DAVID W. BRADLEY, Associate Director for Research, Office of Enrollment Services, Boston University
ROBERT S. LAY, Director of Enrollment Management Research, Boston College

This paper discusses the various elements that contribute to the development of an effective planning organization. External market factors, market position, institutional functions, technologies and resources, institutional objectives, organizational alignments, and political constraints of the educational environment are related to planning models developed in the corporate sector. The presenters make extensive use of visual aids in describing strategic planning models such as Industry Structure Analysis, Business System Analysis, Portfolio Analysis, Life Cycle Analysis, and Stakeholder Analysis, while contributing to the theoretical development of analogous educational models.

33E CONTRIBUTED PAPERS (traditional)

CHARLES I. BROWN (convener), Associate Professor of Education, Fayetteville State University
GUY GIRARD (facilitator), Agent de recherche, Conférence des recteurs et des principaux des universités du Québec

33E(1) USING COLLEGE PARTICIPATION RATES: OPPORTUNITIES AND PITFALLS

MELODIE E. CHRISTAL, Staff Associate, National Center for Higher Education Management Systems (NCHEMS)

Changes in the patterns of college participation rates are becoming of increasing importance to college and university administrators since enrollments are closely linked to the financial health and stability of educational institutions. This paper addresses the issue of participation rates of college students at the international, national, state, and institution levels. At each level, potential data sources are introduced, problems associated with using the data are analyzed, some participation rates are presented, and their applications to educational planning are discussed.

33E(2) UNDERSTANDING EDUCATIONAL SATISFACTION

DENNIS E. DOMER, Associate Dean/Acting Director of Architecture, School of Architecture & Urban Design, University of Kansas

Institutional researchers often evaluate educational satisfaction without supporting their evaluations with carefully tested theories of satisfaction. This paper outlines the problems of defining satisfaction and reviews significant literature on the subject. A theory of satisfaction based on expectations and reality dissonance is tested with data gathered from an alumni survey. Practitioners can use this theory and model in many kinds of educational setting. More informative reports about educational satisfaction may be written when satisfaction is explained by analyzing expectations.

33G THE COMPUTER TRANSLATOR—A NEW ROLE FOR INSTITUTIONAL RESEARCH (panel)

FLETCHER F. CARTER (moderator), Director of Institutional Research, Radford University
RICHARD A. MANAHAN, Vice President for Business Affairs, East Tennessee State University
E. MICHAEL STAMAN, Senior Principal Consultant, Systems and Computer Technology, Inc.
EDITH H. CARTER, Statistician, New River Community College
MADAN CAPOOR, Director of Research & Planning, Middlesex County College
JERRY L. GEHRE, Director of University Planning & Capital Budget, East Tennessee State University

Computer technology has made a dramatic impact on higher education administration in the last two decades. There exists a sizeable number of administrators who lack the background to understand the culture arising from the growth of computer technology. The relationship between the computer technology and administrators may require the office of a translator. The interaction between administrators, computer personnel, and researchers will lead to new insights into a rapidly developing role for institutional research.

33H DATA BASES FOR COLLECTIVE BARGAINING (seminar)

F. CRAIG JOHNSON (convener), Professor of Education, Florida State University
RON C. LEVESQUE (presenter), Executive Secretary, Canadian Association of University Teachers

This presentation included the criteria and some examples of data bases optimized for collective bargaining from the perspectives of both the faculty and the management. The growth of collective bargaining in universities has brought with it demand for improved faculty data bases. Records must now be maintained to reflect staff needs in order to prepare the best case for salary negotiations and for individual grievances. A properly organized data base provides the institutional researcher with more complete data and places the institutional research office in a better position to respond more fully to requests for information needed for making decisions about faculty members. The need to integrate human resources and technology is clear in areas related to the preparation of data bases for collective bargaining.

33/34J DATA BASE KNOW-HOW FOR INSTITUTIONAL RESEARCHERS (workshop)

LYNN BARNETT (director), Assistant Director, ERIC Clearinghouse on Higher Education
MARILYN SCUTT SHORR (co-director), Associate Director, ERIC Clearinghouse on Higher Education

This workshop introduced institutional researchers to computerized literature data bases, demonstrated their effectiveness and time-saving features, and instructed participants in immediate-access techniques. Participants became (1) familiar with the strengths and weaknesses, (2) learned about several data bases of interest to the institutional research office, (3) identified procedures for negotiating a sucessful computer search, (4) devised a search strategy, and (5) observed and practiced computer searching.

33/34K ADVANCING COMMUNITY COLLEGE INSTITUTIONAL RESEARCH TOWARD 1990: LINKING RESEARCH WITH STRATEGIC DECISIONS IN MANAGEMENT (workshop)

RICHARD L. ALFRED (director), Professor of Higher Education/Director of the Community College Program, University of Michigan
MANTHA V. MEHALLIS (co-director), Director of Institutional Research, Broward Community College
GERLINDA S. MELCHIORI (co-director), Director of Research & Administration, University of Michigan

With the close of the higher education growth period in the 1970s and the advent of reduction in the 1980s, a central issue in community college institutional research has been its role and function in institutional management. This workshop was designed to present new models for the application of research to strategic decisions in management. Intended for community college researchers, planning specialists, budget analysts, and evaluation specialists, the expected outcome of the workshop was the development of institutionally tailored action plans for the application of research to decision categories of institutional mission and goals, program/service mix, clientele, resource allocation and procurement, and institutional policy.

33/34L/ QUESTIONNAIRE SURVEY RESEARCH (workshop)

W. KEVIN HUNT (director), Director of Research, Planning, & Data Services, Tidewater Community College
RICHARD D. HOWARD (co-director), Director of Institutional Research, West Virginia University
GERALD W. McLAUGHLIN (co-director), Associate Director of Institutional Research, Virginia Polytechnic Institute and State University
WILLIAM R. FENDLEY, Jr. (co-director), Associate Director of Institutional Planning & Studies, University of Virginia

Institutional researchers are often requested to conduct surveys to provide information concerning their institutions. This workshop provided participants with information on the key components in the conduct of survey research: (1) isolation of the research question(s), (2) determination of the appropriate sample, (3) identification of the pertinent data items, (4) construction of the survey instrument, (5) implementation of the study, (6) analysis of the data, and (7) presentation of the findings. Defects and dangers of questionnaire survey research were discussed, along with procedures which can reduce these problems.

34A CONTRIBUTED PAPER (author's roundtable)

ELIZABETH F. FOX (convener), Director of Institutional Research, University of Alabama-Birmingham

34A(1) OCCUPATIONAL RESEARCH: A TOOL TO HELP INSTITUTIONAL RESEARCHERS IN THE MARKETING OF THE INSTITUTION

WILLIAM WELSH, Research Associate, National Technical Institute for the Deaf, Rochester Institute of Technology
CHARLES A. PARKER, Director of Planning & Evaluation Systems, National Technical Institute for the Deaf, Rochester Institute of Technology
JANET E. MacLEOD, Research Assistant, Division of Career Opportunities, National Technical Institute for the Deaf, Rochester Institute of Technology

A decline in the school-age population has, as is generally known, forced academic institutions to market themselves more aggressively. Benefits accruing from graduation from the institution must be shown as specifically as possible. The National Technical Institute for the Deaf at the Rochester Institute of Technology has conducted research on all former students (both graduates and withdrawals) and has enabled recruiters to point to very specific areas, (e.g., job, salary, job satisfaction) in which graduates far surpass withdrawals. The paper details ways in which these results can be used as marketing tools.

34A(2) STRATEGIC MARKETING EVALUATION: A FOCUS AREA FOR INSTITUTIONAL RESEARCH

EDWARD M. COOPER, Assistant Professor of Marketing, Metropolitan State College
RUSTY GACKENBACH, Research Associate, Metropolitan State College

The rapid infusion of marketing concepts into higher education has left the institutional researcher without a clear focus of a redefined and expanded role for institutional research. Based upon primary and secondary research encompassing over 200 institutional research offices, this paper clarifies the activities currently undertaken by institutional research offices. Using this data and the Strategic Market Evaluation Model, new areas of research are added to those that are already carried by institutional research to suggest a refocusing of institutional research efforts in the future in strategic marketing evaluation.

(Note: This paper was not presented because of a family emergency, but it is available through ERIC)

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34B CONTRIBUTED PAPERS (traditional)

A. NANCY AVAKIAN (convener), Assistant Vice Chancellor for Academic Affairs, University of Missouri-St. Louis
JOE L. SAUPE (facilitator), University Director of Institutional Research, University of Missouri

34B(1) PATTERNS OF INSTITUTIONAL EFFECTIVENESS IN HIGHER EDUCATION

KIM CAMERON, Director of Organizational Studies, National Center for Higher Education Management Systems (NCHEMS)

This paper reports the results of an investigation of organizational effectiveness in colleges and universities from 1976 to 1980. Arguments are made as to why past approaches to assessing effectiveness in higher education (reputational rankings, starting salaries of graduates, cost and efficiency figures, etc.) are neither applicable nor useful to the majority of colleges and universities and why an alternative approach is needed. Results of these investigations include an identification of the strategies found to be most useful in improving effectiveness over time and the strategies found to be most effective in coping with decline in resources.

34B(2) A CASE STUDY OF THE IMPACT OF LEADERSHIP ON THE PLANNING PROCESS

JANYCE J. NAPORA, Director of Planning & Institutional Studies, University of Massachusetts

This study is an in-depth analysis of the impact of leadership and leadership styles on the planning process. It reports a ten-year case study of planning as a political process conducted at a major public university. The selected institution launched three distinct planning efforts during this time, offering a microcosm for study. Each subcase was evaluated according to both a *process* and a *product* definition of planning. The role of the leader in each sub-case was then analyzed and related to performance.

34C CONTRIBUTED PAPERS (traditional)

MARY P. MARTIN (convener), Institutional Research Associate, University of Missouri

34C(1) A FACTOR ANALYSIS MODEL FOR THE ASSESSMENT OF FINANCIAL VIABILITY

JEANNE E. BUDIG, Planning & Development Officer, Center for Research Libraries

This paper reports on the results of a pilot study which attempts to adapt a factor analysis model developed for the United Methodist Conference Colleges to the public traditionally black institutions. Fall 1981 HEGIS financial and enrollment data provided by twelve public traditionally black institutions were analyzed using SPSS and SAS factor analysis algorithms.

34C(2) AN APPLICATION OF QUANTITATIVE TAXONOMIC METHODS TO UNIVERSITY BUDGETING

GERALD R. THRASHER, Director of Institutional Research, University of Maryland-Central Administration

Equity of resource allocation among competing academic departments is a concern of most administrators. Although there is an expectation that similar departments should be treated similarly, departments are frequently grouped together on the basis of intuition, organizational structure, or discipline. This paper explores the use of factor analysis, cluster analysis, and discriminant analysis to reduce this subjectivity and to increase the number of criteria which can be considered.

34D CONTRIBUTED PAPERS (traditional)

DON E. GARDNER (convener), Director of Institutional Research, Portland State University

JOHN A. LUCAS (facilitator), Director of Planning & Research, William Rainey Harper College

34D(1) A REGIONAL COOPERATIVE EFFORT TO DEFINE UNIVERSITY SERVICE AREAS AND RESPOND TO MARKETING QUESTIONS

RONALD A. LEE, Director of Educational Resources Planning & Research, California State University-Long Beach

CHARLES MOSMANN, Director of Institutional Research, California State University-Fullerton

SIMEON P. SLOVACEK, Director of Institutional Research, California State University-Los Angeles

WILLIAM BLISCHKE, Director of Institutional Studies, California State University-Dominguez Hills

THOMAS A. CARBERRY, Systems Analyst, California State University-Long Beach

A prerequisite for any marketing strategy is accurate knowledge about the prospective population. This paper addresses a cooperative effort by four California State University campuses within the Los Angeles Basin to define their respective service areas and develop a capability for responding to marketing questions. Using the 1980 census data and integrating demography with technology, demographic profiles and market information can be displayed in tabular or map form using cross-reference tables and computer-mapping software. Through appropriate overlays of the four campus service areas, individual and/or aggregate student density within selected geographical areas of census tracts, cities, community colleges, and high school districts can be displayed. These data support executive management in the development of marketing strategies and assess the impact of student populations on the surrounding communities.

34D(2) EVALUATING A FACULTY/ADMINISTRATIVE COMPUTER LITERACY PROGRAM

JANET D. SMITH, Director of Educational Evaluation & Market Research Systems, Cuyahoga Community College

E. MICHAEL STAMAN, Senior Principal Consultant, Systems and Computer Technology, Inc.

A faculty/administrative computer literacy program for a multicampus community college is briefly described. The purpose of the program was not to convey detailed, subject-specific information but rather to cause attitudinal changes, changes in participants' knowledge about various uses of computing, and, ultimately, longer term behavioral changes. In the final analysis, the goal is to have participants incorporate the use of computing into day-to-day instructional and administrative activities. The methodology used in the evaluation of the program and conclusions about the effectiveness of the program in achieving its purposes and goals are presented.

34E CONTRIBUTED PAPERS (traditional)

JULIA M. DUCKWALL (convener), Graduate Student, Florida State University
THOMAS R. MASON (facilitator), President, MIRA Incorporated

34E(1) WHO COMES, WHO DOESN'T COME, AND WHY?

J. E. GONZALEZ, Research Associate, University of Texas-Austin
BERNARD YANCEY, Research Associate, University of Texas-Austin

With declining enrollments and decreasing availability of resources, institutions must take measures to assess and modify existing admission policies and recruitment strategies to improve their efficiency. Linked to the behavior of individuals choosing to matriculate, versus those who don't, is a difference in perception of that institution. The perceptions of five samples of students were measured at a large southwestern university and used to assess the differences between students who were admitted and enrolled and those who were admitted and did not enroll. Significant differences were discovered, speaking to a need to better inform prospective students about the university and to make modifications in the structure and policies of the university itself.

(Note: This paper was not presented, but copies were made available.)

34E(2) STUDENT FLOW AND CURRICULUM MATRIX

MICHAEL E. YOUNG, Director of Planning Studies, Ohio State University
JOHN M. BOYER, Programmer/Analyst-Lead, Office of Planning Studies, Ohio State University
MICHAEL J. HAIGHT, Consultant, Seattle, Washington

This paper describes the first use of public-domain software to produce enrollment forecasts via a Markov student flow model. The NCHEMS Costing and Data Management System (CADMS) is used in a new and creative way to produce outputs which are very useful to university planners and managers and are extremely inexpensive. The system consists of three steps: The first step, Student Flow Calculation, computes the relationship of enrollments by major and student level from one year to another. The second step is the construction of a historical Curriculum Matrix (CM). The third and final step of the system combines the outputs of the first two steps to produce Departmental Workload Forecasts. Following is a discussion of each component of the system. This paper concludes with recommendations regarding implementation strategies and cost estimates.

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Forum Program Participants and Contributors

FORUM PROGRAM PARTICIPANTS AND CONTRIBUTORS (301)

Adams, Carl R.
13H
Adams, W. Sam
3Q; 30T
Adelman, Stanley I.
4S-8; 13U
Adler, Stephen
15A(2)
Adrian, William B.
33B(1)
Alfred, Richard L.
22U; 33/34K
Anderson, Sandra M.
15B(1)
Andrew, Loyd D.
15B(1); 16C(2); 24E(1)
Arter, Margaret H.
16E
Austin, Ann E.
31G
Avakian, A. Nancy
34B
Baker, John, Jr.
31E
Balcerski, Judith
16E(1)
Bare, Alan C.
15E(1)
Barnett, Lynn
33/34J
Batson, Steve W.
16C(1)
Baudin, Jerry J.
17A
Belanger, Charles H.
13A(2), 25H
Bell, Jerry L.
3/4B
Beller, Ronald E.
3/4D
Berkley, Dean F.
12T
Bingman, Richard M.
24B(1)
Blackburn, Robert
16E(1); 24A(1)
Blischke, William
34D(1)
Blom, Douglas I.
10A
Bloom, Allan M.
25C
Bloomfield, Stefan D.
28B; 31A
Boberg, Alice L.
24A(1)
Bollmann, Sue W.
25U
Bolte, J. R.
16E(2)
Boras, Kenneth W.
15C
Bowes, William
4S-4
Boyer, John M.
34E(2)
Bradley, David W.
33D(2)
Bragg, Stephen M.
15B(2)
Brandenburg, Richard K.
22E(2)
Branscum, Joanne
3/4B
Brinkman, Paul
15E(2)
Brodigan, David L.
4S-11
Brown, Charles I.
17E; 33E
Brown, Marilyn K.
4S-8; 31C
Brown, Roberta D.
24E
Brush, Leonard M.
4S-3
Bruss, Edward A.
25C
Buchtel, Foster S.
24U
Budig, Jeanne E.
4S-11; 13E(2); 15U; 34C(1)
Cameron, Barry J.
24F(2); 33B
Cameron, Kim
13C(2); 34B(1)
Cammack, Elwin F.
16F/G
Campbell, Jill F.
15C(1)
Capoor, Madan
24G(1); 33G
Carberry, Thomas A.
34D(1)
Carter, Edith H.
3S; 13B; 33G
Carter, Fletcher F.
3/4A; 33G
Carter, Richard D.
13D(2)
Charboneau, Richard C.
13D(2)
Chase, John S.
16U; 31D
Christal, Melodie E.
33E(1)
Clark, Sheldon B.
31C(1)
Clark, Shirley M.
15D(1)
Cochran, Thomas R.
22C(2)
Cohen, Margaret K.
22E(1)
Coleman, Daniel R.
16E(2); 25H
Collins, C. B.
31B(1)
Collins, W. H.
31B(1)
Collmer, Russell C.
25B
Cooper, Edward H.
34A(2)
Corcoran, Mary E.
4S-9; 15D(1)
Craft, Larry
15A(2)
Dahl, Randall W.
31B(2)
Das, Rhea S.
13D(2)
Davis, Bobby
24D(2)
Delmont, Timothy J.
13F/G
DesRosiers, Edward K.
7T; 21T
Dijkman, Frank G.
33C(1)
Domer, Dennis E.
33E(2)
Donsky, Aaron
4R; 24G
Duckwall, Julia M.
18Z; 34E
Dumont, Richard G.
31E(1)
Dunn, John A., Jr.
4S-7; 25U
Elfner, Eliot S.
Pre-Forum 2E

Endo, Jean, J.
13B(2); 31D
Ewell, Peter
15F/G
Farrell, Jack R.
22B(1)
Faulman, Jane
28C
Fawcett, Greg B.
13U; 24H
Feddersen, Alan P.
33B(2)
Fendley, William R., Jr.
4L; 24C(1); 33/34L
Fenske, Robert H.
24E(2)
Fincher, Cameron L.
4S-6; 31F
Firnberg, James W.
22C; 31F
Ford, Clinita A.
22D
Ford, Marge L.
33A(1)
Foster, Penny D.
17D
Fox, Elizabeth F.
4S-2; 25E; 34A
Franklin, L.
16E(2)
Freeman, Jack E.
31U
Fridrich, Arthur J.
25B(1)
Friedman, Frank
22D
Gabovitch, Rhonda M.
25U
Gackenbach, Rusty
34A(2)
Gamson, Zelda F.
31G
Gapen, Dean Kaye
33C(2)
Gardiner, John J.
33B(1)
Gardner, Don E.
4S-7; 34D
Garg, Devendra P.
31D(1)
Garnello, Andrea H.
13D(2)
Gates, Larry C.
25E(2)
Gehre, Jerry L.
3/4D; 33G
Gilbert, Charles C.
25B
Gilmour, Joseph E. (Tim)
4S-2
Girard, Guy
33E
Gittelson-Reid, Claire
15A(2)
Gomez, David
22F/G
Gonzalez, J.E.
34E(1)
Gould, Loren
24D(1)
Gradisar, Helen M.
25A
Graff, Gary W.
28D
Granito, John
22F/G
Greene, James E., Jr.
24B(2); 25E(1)
Griffits, Horace F.
15E
Gulko, Warren W.
2H
Hass, Raymond M.
31U
Haberaecker, Heather J.
33B
Hackman, Judith Dozier
13C(1)
Haight, Michael J.
34E(2)
Ham, James M.
12T
Hample, Stephen R.
15F/G; 28F
Harpel, Richard L.
13B(2); 15F/G; 16E
Harris, Glenn
16H
Hassan, Jamal
22H
Hengstler, Dennis D.
13D; 22C(2)
Henry, Thomas A.
16C(2)
Heydinger, Richard B.
4S-9; 24F(1)
Hillman, Barbara J.
33D
Hillman, Eric A.
25E
Holt, David
31F
Howard, Richard D.
16A(1); 33/34L
Hsu, Y.
31B(1)
Hughes, Robert C.
22A
Hunt, W. Kevin
13U; 16A(2); 17B;
33/34L
Jedamus, Paul
33D
Jenny Hans H.
3Q
Johnson, F. Craig
24A; 33H
Johnston, Barbara M.
24E(1)
Jones, James T.
31E(1)
Jung, Loren B.
15D
Kail, Leonard
25H
Keller, Michael J.
25G
Krakower, Jack
22F/G; 25D(1)
Kuhns Eileen
22C(1)
Kunkel, Paul E.
13C
Langston, Ira. W.
13D; 22B
Lasher, William F.
3Q; 7T; 8H; 12T;
20T; 32T
Laughlin, J. Stanley
3/4F
Lay, Robert S.
4Q; 16D(1); 33D(2)
Lee, Ronald A.
18B; 34D(1)
Lendenmann, Werner
24D
Lenning, Oscar T.
17R
Levesque, Ron C.
33H
Levy, Sheldon
21T
Lewis, Robert I.
13C; 15U
Litten, Larry H.
10F
Litwin, James L.
31B
Liu, Richard
24G(2)
Lolli, Anthony, Jr.
25C(1)
Longmore, Myron J.
25B(1)

Lorang, Wendell G.
22A(1)
Lorenz, Reuben
16F/G
Lucas, John A.
34D
Luciano, Sister Ann C.
22E
Lundy, Harold W.
24D(2)
Lunney, Gerald H.
10D
Lussier, Thelma G.
17/18F/G
Macdonald, H. Ian
21T
MacLeod, Janet E.
34A(1)
Manahan, Richard A.
3/4D; 33G
Martin, Mary P.
33A(1); 34C
Martorana, S. V.
22C(1)
Masland, Andrew T.
31A(1)
Mason, Thomas R.
34E
Matross, Ronald P.
25G
Matt, Joseph J.
25C(2)
Matthews, Jana B.
13H; 22F/G; 33A
McAllister, Harmon C.
10E
McCoy, Marilyn
15B
McFarlane, M. P.
24F(2)
McLaughlin, Gerald W.
13B(1); 24C(1); 33/34L
Mehallis, Mantha V.
7T; 32T; 33/34K
Melchiori, Gerlinda S.
22U; 33/34K
Meredith, Mark
10G; 17C; 31B
Micek, Sidney S.
22A(2)
Michael, Robert O.
22B(2)
Mims, R. Sue
4S-1; 13F/G
Moden, Gary O.
22D(1); 24C
Montgomery, James R.
13B(1); 24C(1); 31H
Morse, Suzanne W.
33C(2)
Mosmann, Charles
34D(1)
Napora, Janyce J.
34B(2)
Nazari-Robati, Ali
33B(1)
Nichols, James O.
25D; 31C(1)
Nilsson, Thaly
15A; 16U
Norris, Donald M.
4S; 15A(2)
Parker, Charles A.
34A(1)
Paschke, Barbara
25A(2)
Penson, Edward M.
16F/G
Perry, Richard R.
15C; 31H
Peterson, Marvin W.
22U; 31G
Pion, Georgine
15D(2)
Pittman, Laura
3/4B
Porter, John D.
24E(2); 25C(2)
Prather, James E.
24B(2); 25E(1)
Pratt, Linda K.
24B
Presley, Jennifer B.
4S-4
Pruitt, Sidney A.
15A(2)
Raab, Marjorie K.
4S-10
Reichard, Donald J.
16A; 25F
Reiffen, David
33B(2)
Roach, Ed D.
Pre-Forum 2C; Pre-Forum 3C
Roberts, Adrian Ray
31D(1)
Roelfs, Pamela J.
24F
Roge, Jean
15D(2)
Rosen, Robert
3/4C
Rosenthal, William H.
16C
Rossmeier, Joseph G.
22E
Ruddock, Maryann S.
25B(2)
Russell, Ralph E.
25E(1)
Sanders, Jack
24G(2)
Sanford, Timothy R.
33C
Sauer, Kenneth R.
15B(2)
Saunders, Laura E.
4S-5
Saupe, Joe L.
16U; 31H; 34B
Savenije, Bas S.
33C(1)
Schmidtlein, Frank A.
16C
Schoen, Jane M.
25A(1)
Schofield, John
Pre-Forum 2E
Schott, John S.
24C(2)
Schure, Alexander
30T
Seeley, John A.
24U
Selin, Larry R.
25E(2)
Shaffer, Kay L.
22B(2)
Shearer, Sharon
13D(1)
Sheehan, Bernard S.
13H; 15H; 16U; 25D(2); 31H
Sholtys, Phyllis A.
16B(1)
Shorr, Marilyn Scutt
33/34J
Simha, O. Robert
31U
Simpson, William A.
4S-5; 14M; 22E(2); 25H
Slovacek, Simeon P.
31D(2); 34D(1)
Smith, Alvin W.
24C(1)
Smith, Janet D.
34D(2)
Smith, Stuart L.
15H
Spiro, Louis M.
15C(1)

Stahl, Wayne K.
22B
Staman, E. Michael
Pre-Forum 2F/G; 24H; 28E; 33G, 34D(2)
Stark, Joan S.
31G
Staub, A. Kay
22C; 31F
Stecklein, John E.
13B; 31H
Stevenson, Michael
33D(1)
Strenglein, Denise
16H
Strickland, Deborah C.
13B(1)
Sturgeon, Joseph S.
24B(2); 25E(1)
Suskie, Linda A.
3/4E; 13D(1)
Swanson, Robert S.
16F/G
Szutz, Joseph J.
18C
Teeter, Deborah J.
4S-6; 24C(2); 31A(2); 33C
Terenzini, Patrick T.
15F/G; 22A(1); 24H
Tetlow, William L.
4S-1; 7T; 10Z; 13H
Theophilides, Christos
22A(1)
Thomas, Alice M.
4S-11
Thrasher, Gerald R., Jr.
16D(2); 34C(2)
Todd, Edward S.
16B(2)
Tremblay, Lise
13A(2)
Turner, Samuel E.
4P
Uhl, Norman P.
Pre-Forum 2F/G; 15D
Updegrove, Daniel A.
24H; 25U
Ussery, Robert M.
4N; 31B(1)
Valiga, Michael J.
14L; 25G; 31C(2)
Verity, Dennis
22F/G
von Zur-Muehlen, Max
22H
Wallace, Carol C.
15A(1)
Wallen, R. Dan
16B; 33D(1)
Wallhaus, Penny A.
13A
Wallhaus, Robert A.
15B(2); 16D
Ward, Wilfred A.
15E
Warner, Sean
25A(1)
Weiler, William C.
24A(2)
Weiss, Janis H.
31E
Welsh, William
34A(1)
Wheeless, Virginia Eman
16A(1)
Wilders, Mary K. Baratta
4S-10;10B
Wilkinson, Cheryl Y.
25B(2)
Wilson, Richard F.
13F/G
Wing, Paul
22U
Winstead, Philip
24U
Winstead, Wayland H.
24C(1)
Wittstruck, John R.
10C
Yancey, Bernard
13U; 34E(1)
Yeager, John L.
4S-3
Young, Michael E.
15F/G; 34E(2)
Zammuto, Raymond F.
25D(1)
Zincone, L. H.
31B(1)

Forum Registrants

FORUM REGISTRANTS (656)

Abbott, Mante E.
Adams, Carl R.
Adams, Sterlin N.
Adams, W. Sam
Adelman, Stanley I.
Adrian, William B.
Alessio, James M.
Alfred, Richard L.
Allan, George B.
Allen, Maxine B.
Alston, Lorraine B.
Altmeyer, George E.
Anderson, Charles A.
Andrew, Loyd D.
Andrew, Norah F.
Annas, Tommy
Aquino, Felix J.
Arter, Margaret H.
Asher, E. Jack
Austin, Ann E.
Avakian, A. Nancy
Baker, Janette
Baker, John, Jr.
Balcerski, Judith A.
Balik, Daniel J.
Balsley, Richard D.
Bare, Alan C.
Barnard, A. A.
Barnett, Lynn
Barr, Robert B.
Barron-Mee, Junith
Basilonon, Emily
Batson, Steve W.
Baudin, Jerry J.
Beard, Patrick D.
Beck, Althea J.
Bedsole, Dan
Belanger, Charles H.
Bell, Jerry L.
Beller, Ronald E.
Bellucci, J. T.
Benitez-Delgado, Sara
Benjamin, Kathleen
Bennett, Marguerite M.
Berg, David J.
Berkley, Dean F.
Berry, Richard M.
Best, Harold L.
Bezozo, Cathy
Bingman, Richard M.
Bissell, H. Leverne
Blackburn, Robert
Blair, Norman A.
Blom, Douglas I.
Bloom, Allan M.
Bloomfield, Stefan D.
Boberg, Alice L.
Bohannon, Tom R.
Bollmann, Sue W.
Bolton, Jeffrey W.
Boras, Kenneth W.
Bottomley, Wayne N.
Bourdon, James P.
Bousquet, Jean Claude
Bowes, William R.
Boyer, John M.
Boyle, Charlotte
Bradley, David W.
Brandenburg, Richard K.
Branscum, Joanne
Brinkman, Paul
Britton, Jean C.
Brodigan, David L.
Brown, Charles I.
Brown, Marilyn K.
Brown, Roberta D.
Brown, Stephanie Laforest
Brush, Leonard M.
Bruss, Edward A.
Buchan, Dorothy J.
Buchanan, Mary L.
Buchtel, Foster S.
Budig, Jeanne E.
Burgess, Rebecca B.
Butts, Stephen J.
Calder, William Berry
Caldwell, Annette
Cameron, Barry J.
Cameron, David M.
Cameron, Kim S.
Cammack, Elwin F.
Campbell, Jill F.
Cantey, Wilbert E.
Capoor, Madan
Carberry, Thomas A.
Carey, Karen W.
Carlsson, P. Allan
Carreau, Germain
Carlte, Gloria A.
Carter, Edith H.
Carter, Fletcher F.
Carter, Glenda F.
Carter, Richard D.
Casey, Martha L.
Cash, Bill
Chamberlain, Don H.
Chambers, Willa B.
Champ, Gary L.
Chan, Susy S.
Chase, John S.
Chaveas, Richard W.
Chew, Won-Ling
Christal, Melodie E.
Chung, Lo-Yi
Clark, Chris A.
Clark, Frank C.
Clark, James R.
Clark, Milton L.
Cohen, Margaret K.
Coleman, Daniel R.
Collmer, Russell C.
Cook, Ruth Ann
Corcoran, Mary E.
Cosgrove, John J.
Coutu, Keith A.
Cowin, Robert
Coyne, Denise L.
Craft, Larry
Cullins, Robert C.
Cunningham, M. Wayne
Curran, Fred A.
Curry, Denis J.
Dailey, Porter
Dammeyer, Joan
Darling, A. L.
Das, Rhea S.
Davalli, Paul A.
Davidson, Philip R.
Davis, Harry P.
Davis, Melvin
Day, Thomas C.
De Rooij, Peter
Dean, Robert L.
Debruin, Robert L.
Decuypere, Ronald R.
Delmont, Timothy J.
Desbiens, Brian
Desrosiers, Edward K.
Dickey, Ann K.
Dijkman, Frank G.
Domer, Dennis E.
Donhardt, Gary L.
Donsky, Aaron
Draxl, Marilynn A.
Dryden, Lou
Duckwall, Julia M.
Duff, Franklin L.
Dulniak, Dennis J.
Dumont, Richard G.
Dunn, John A., Jr.
Dunne, Robert S.
Dutton, Jeffrey E.
Dykstra, Timothy E.
Eagen, Kerry G.
Eastman, Julia
Edamatsu, Phyllis Y.
Eikenberry, Frank L.
Elfner, Eliot S.
Elia, Irene J.
Endo, Jean J.
England, Martin D.
Epting, Gladys J.
Ewell, Peter T.
Ezell, Joe B.
Farago, Peter T.
Farrell, Jack R.
Faulkner, Gary L.
Faulkner, Paula N.
Faulman, Jane
Fawcett, Greg B.
Feddersen, Alan P.
Feickert, Peter D.
Fendley, William R., Jr.
Fenske, Robert H.
Fensternacher, William P.
Fife, Jonathan D.
Fincher, A. Lawrence
Fincher, Cameron L.
Findlay, Alan William
Fiorino, Eleanor
Firnberg, James W.
Fischer, Roy H.
Flaitz, Jim R.
Fleming, Lynn M.
Fletcher, Gail M.
Foe, John L.
Foord, Barry R.
Ford, Clinita A.
Ford, Marge L.
Forest, Andre
Foster, Penny D.
Fox, Elizabeth F.
Freccero, Yvonne
Freedman, Mindy
Freeman, Jack E.
Fridrich, Arthur J.
Friedman, Frank H.
Frigault, Marc Brian
Froh, Robert C.
Fujita, Adele T.
Gabovitch, Rhonda M.
Gallo, Judy A.
Gamson, Zelda F.
Gapen, D. Kaye
Gardner, Don E.
Gardner, Robert W.
Garlick, Leonard D.
Garrett, Mavis C.
Gates, Larry C.
Gehrs, Jerry L.
Gelin, Franklin C.
German, Shirley A.
Gifford, A. M.
Gilbert, Charles C.
Gill, Judith I.
Gilmor, Paul
Gilmour, Joseph E.
Girard, Guy
Girsee, Jean E.
Glanville, Marie R.
Glover, Dennis F.
Glover, Robert H.
Gomez, David
Gonzalez, J. E.
Good, Richard M.
Gose, Frank J.
Gould, Loren
Gradisar, Helen M.
Graff, Gary W.
Granito, John
Greeley, Leigh G.
Green, Michael J.
Greenhill, Craig J.
Griego, Elizabeth B.
Griffitts, Horace F.
Groome, Agnes J.
Grose, Robert F.
Gross, Francis M.
Gulko, Warren W.
Gurr, Fiona
Haas, Raymond M.
Haberaecker, Heather J.
Hackman, Judith Dozier
Hall, Jane P.
Ham, James M.
Hamberg, Ron L.
Hample, Stephen R.
Hand, R. J.
Hansen, Bertrand L.
Harden, Warren R.
Harms, Joan Y.
Harpel, Richard L.
Harris, Adrian H.
Harris, Donna C.
Harris, Glenn
Hassan, Jamal
Hayes, Annie R.
Haynes, James H.
Heck, Richard C.
Hecker, Donald L.
Hedden, Mike O.
Hem, Peggy
Hemmeter, John T.
Henard, Ralph E.
Henderson, James A., Jr.
Hengstler, Dennis D.
Henry, Thomas A.
Hesemann, John P.
Heydinger, Richard B.
Higginbotham, Linda A.

Higley, H. Bruce
Hillman, Barbara J.
Hillman, Eric A.
Hilpert, Frederick M.
Hoelcle, Larene N.
Hoffman, Lou
Hohenadel, Randy
Holdaway, Edward A.
Holderfield, H. Mclean
Holmes, Jeffrey
Holmes, Robert B.
Holt, David M.
Houwing, J. F.
Howard, Richard D.
Howell, James O.
Hudgins, Francine
Hughes, Robert C.
Huidekooper, Elizabeth C.
Hussken, Jon
Hunt, W. Kevin
Hunter, Larry O.
Hutten, Leah R.
Hyatt, James A.
Innis, C. Thomas
Ivery, Marsha K.
Jacobs, Richard W.
Jamieson, Derek M.
Jedamus, Paul
Jenny, Hans H.
Jensen, Harald E.
Johnson, F. Craig
Johnson, Richard A.
Johnson, Sandra K.
Johnston, Barbara M.
Jones, Larry G.
Jung, Loren B.
Kail, Leonard
Kallio, Ruth E.
Karolewski, Teresa
Kasper, Jody M.
Kaufman, Barry
Keating, Jean C.
Keller, Michael J.
Kelloway, Karen R.
Kells, Herbert R.
Kelso, Paul C.
Kerstetter, Philip P.
King, Francis P.
King, Richard L.
Kirchoff, Charlene
Klingbeil, Sigrid
Knepp, Marilyn G.
Kojaku, Lawrence K.
Kominski, C. A.
Korthage, Mary
Krakower, Jack Y.
Kreek, Holger
Kuhns, Eileen P.
Kunkel, Paul E.
Kutina, Kenneth L.
Kytle, Jackson
Lang, Daniel W.
Langston, Ira W.
Langston, Paul Dee
Lappin, Ernie
Lasher, William F.
Laughlin, J. Stanley
Law, Walter
Lay, Robert S.
Lee, Greg F.
Lee, Henry
Lee, Marilyn E.
Lee, Ronald A.
Leeney, Peter F.
Leik, Mary K.
Lema, Jo-Anne S.
Lendenmann, Werner
Lenning, Oscar T.
Lennox, Carol
Lester, Sister Jeanette
Levesque, Ron C.
Levy, Sheldon
Lewis, Lincoln V.
Lewis, Robert I.
Lichtenstein, Pauline
Liebmann, Jeffrey D.
Lindale, Richard C.
Lineweaver, Hilda E.
Linhart, Cynthia A.
Litaker, R. Gregory
Litten, Larry H.
Litwin, James Leon
Liu, Richard
Lloyd-Jones, Joseph
Lolli, Anthony
Lorenz, Reuben
Love, A. Richardson
Lowery, Sandra K.
Lowther, Malcolm A.
Loycano, Robert J.
Lucas, John A.
Luciano, Sister Ann Carmel
Luna, Cynthia L.
Lunney, Gerald H.
Lussier, Thelma G.
Lynn, Sandra J.
MacDermaid, Darryl F.
Macdonald, H. Ian
MacKinnon, Anne-Marie
MacLean, James M.
Manahan, Richard A.
Mar, R. E.
March, William A.
Martin, Mary P.
Martorana, S. V.
Masland, Andrew T.
Mason, Thomas R.
Mason, Vicki D.
Matross, Ronald P.
Matthews, Irene J.
Matthews, Jana B.
Mauldin, Jennifer E.
Mayo, Martha (Hinman)
McAllister, Harmon C.
McAllister, James A.
McCammon, William H.
McCollester, Charles W.
McCoy, Marilyn
McDaniel, Cleve
McLaughlin, Gerald W.
McMurray, Ursula
Mehallis, George
Mehallis, Mantha Vlahos
Melchiori, Gerlinda S.
Meredith, Mark
Metzger, Larry W.
Meyer, Edward D.
Micek, Sidney S.
Michael, Robert O.
Miller, Randal P.
Mills, Michael R.
Milton, Toby H.
Mims, R. Sue
Mingle, James R.
Moden, Gary O.
Monahan, E. J.
Montgomery, James R.
Moore, Margaret L.
Moran, Cleo
More, Deborah Scott
Morgan, John D.
Morrow, Lester G.
Morse, Suzanne W.
Muffo, John A.
Myrup, Edwin J.
Nagainis, Janine
Namminga, Sam E., Jr.
Napora, Janyce J.
Naugher, Jimmie R.
Nayyar, Devendra P.
Neal, Maureen T.
Neville, Nancy A.
Newell, Charldean
Nichols, James O.
Nichols, Ralph P.
Niles, Wallace M.
Nilsson, Thaly
Niwa, Shelley
Norman, Anne S.
Norris, Donald M.
Nunez, Nydia
O'Hare, Daniel
O'Shea, John A.
Olson, Jon
Olson, Leroy A.
Orten, Catherine G. B.
Overstreet, J. Douglas
Oyler, Gary M.
Page-Valin, Louise
Parker, Charles A.
Paschke, Barbara
Paul, Marnie
Payton, Lawrence C.
Peltier, Lynn H.
Penson, Edward M.
Perry, Richard R.
Peterson, Marvin W.
Petolas, Jean Pierre
Phaliphas, Richard W.
Phillips, Patrick S.
Pinard, Claire
Pinel, Yvon
Pittman, Laura L.
Platt, Barbara
Platt, Kathleen S.
Pogany, Jack R.
Porter, John D.
Prather, James E.
Pratt, Linda K.
Prendergast, Patricia
Presley, Jennifer B.
Presutto, Enio
Priede, Janis
Quazi, Saeed
Raab, Marjorie K.
Rajasekhara, Koosappa
Redmon, Thomas, E. R.
Reichard, Donald J.
Reid, Claire
Reid, John Y.
Rich, Stuart L.
Ridge, John Wm.
Riley, Janet
Ritchie, James L.
Rivest, Denis
Roark, William F.
Roberts, Adrian
Robertson, David J.
Robertson, Leon B.
Robinson, Mitchell
Roelfs, Pamela J.
Roge, Jean H.
Roke, Edward
Rose, Homer C., Jr.
Rosenthal, William H.
Rossmann, Jack E.
Rossmeier, Joseph G.
Ruchkall, Barbara L.
Ruddock, Maryann Steele
Rudy, Barbara A.
Ruff, Dan G.
Russell, Ralph E.
Sanford, Timothy R.
Sauer, Kenneth R.
Saunders, Laura E.
Saupe, Joe L.
Sauve, Robert P.
Savenije, Bas
Scalese, Cheryl A.
Scharfenborger, James F.
Schmidtlein, Frank A.
Schoen, Jane M.
Schomberg, Steven F.
Schott, John S.
Schure, Alexander
Selin, Larry R.
Selleck, Laura J.
Senn, David F.
Seybert, Jeff
Shaw, Colin S.
Sheehan, Bernard S.
Sheldon, Philip B.
Sholtys, Phyllis A.
Short, Marilyn S.
Simha, O. R.
Simpson, William A.
Sircus, Gerald
Skobjak, Bernadette L.
Skubal, Jacqueline M.
Slark, Julie
Slovacek, Simeon P.
Smith, Alvin W.
Smith, Carson E.
Smith, Dorothy K.
Smith, Edwin R.
Smith, Stuart L.
Song, Ling
Southam, Neil
Spiro, Louis M.
Stahl, Wayne K.
Stallworth, Herbert F.
Stallworth, Yvette M.
Staman, E. Michael
Stark, Joan S.
Starke, Rojean
Staszkiewicz, Mark John
Staub, A. Kay
Steckiein, John E.
Stenton, Paul
Stephens, Barbara P.
Stiles, Ruthann T.
Stone, Marsha R.
Straumanis, Eric R.
Strenglein, Denise
Stroud, Elizabeth T.
Suskie, Linda A.
Swanson, Robert S.
Swirsky, Ronald
Szutz, Joseph J.
Talbot, Thomas B.
Talmadge, James T.
Tarrant, Don H.
Taylor, John G., Jr.
Taylor, Kenneth E.
Taylor, William T.
Teeter, Deborah J.

Terenzini, Patrick T.
Tetlow, William L.
Thomas, Alice M.
Thrasher, Gerald R., Jr.
Todd, Edward S.
Todd, William H.
Torrence, Lois E.
Tremblay, Lise
Trotter, George W.
Truman, Robert D.
Tucker, Casey A.
Turley, Peggy
Turner, Samuel E.
Tweddale, R. Bruce
Uhl, Norman P.
Underwood, Sandra J.
Unglaube, James M.
Updegrove, Daniel A.
Ussery, Robert M.
Valiga, Michael J.
Van Den Berg, W. L.
Van Fossen, Ann F.
Vaughan, Walter N.
Veltman, Gayle C.
Venton, J. P.
Verity, Dennis H.
Vincken, J. J. A. M.
Vines, Robert
Von Zur-Muehlen, Max
Wagner, Robert J.
Wallace-Hulecki, Lynda
Wallace, Carol C.
Walleri, R. Dan
Wallhaus, Penny A.
Walthaus, Robert A.
Ward, Matt R.
Ward, Wilfred A.
Warner, Sean
Warwar, Zuhair
Wasileski, John S.
Wattamaniuk, Walter J.
Watts, Charles D.
Weeks, Susan F.
Weiler, William C.
Weiss, Janis H.
Welsh, William A.
Westen, Risdon J.
Whiteis, David H.
Whitely, John M.
Wilders, Mary K. Baratta
Wilkinson, Anthony
Williams, Cheryl
Williams, John A. (Tony)
Williams, Larry R.
Williams, R. Darby
Wilson, Alan R.
Wilson, Jeremy R.
Wilson, Richard F.
Willson, Robb R.
Wing, Paul
Winstead, Philip C.
Winstead, Wayland H.
Wise, Fred H.
Witten, Charles H.
Wittstruck, John R.
Wojnarski, Janusz
Wolf, Frederick H.
Wright, Douglas J.
Wurster, Carol L.
Wyant, Helen S.
Wyly, Thomas
Wynn, G. Richard
Yancey, Bernard
Yarnell, Vicki L.
Yeager, Alfred H.
Yeager, John L.
Young, Michael E.
Zimmer, John F.
Zrebiec, Louis
Zwagerman, Lynn R.

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1983 Forum

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Revised October 1982

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SECTION TWO
AIR DIRECTORY 1983–84

Governance Documents

. . . .

The Association for Institutional Research was incorporated as a non-profit corporation under the laws of the State of Michigan on February 1, 1966, with John Stecklein, Stewart Grout, and James Montgomery signing as incorporators. It is also registered as a "foreign corporation" in Florida and is a tax-exempt organization under Section 501(c)(3) of the Internal Revenue Code.

. . . .

CONSTITUTION AND BYLAWS

(as revised 1982)

Constitution

Article I.
Name

The name of this organization shall be the Association for Institutional Research.

Article II.
Purposes

The major purposes of the Association for Institutional Research shall be to benefit, assist, and advance research leading to improved understanding, planning, and operation of institutions of postsecondary education. Research focused on a single institution and that concerned with groups of institutions both fall within these purposes. In keeping with the dynamic nature of institutions of postsecondary education, the Association shall encourage the application of appropriate methodologies and techniques from many disciplines. It shall also publish and exchange information with respect to institutions of postsecondary education and shall use such means as are necessary and proper to accomplish these objectives, including the raising of funds through gifts, devises, bequests, or otherwise.

Except for the distribution of information, reports, and other similar documents to members and officers, no part of the assets of the Association nor any income or gains to it shall inure to the benefit of its members or officers. Reasonable and normal compensation for services actually rendered and/or reimbursement of expenses properly incurred may be paid to members or officers.

Article III.
Membership

Section 1. Membership in the Association for Institutional Research and election or appointment to any committee are not based on race, ethnic origin, sex, age, or religious conviction.

Section 2. There shall be the following categories of individual membership: regular membership, graduate membership, emeritus membership, and distinguished membership. Review of and action on applications for membership shall be the responsibility of the Secretary.

Section 3. To be eligible for regular membership, a person must (1) be actively engaged in research leading to the improved understanding, planning, and operation of institutions of postsecondary education, or (2) be interested in the methodology and results of institutional research.

Section 4. To be eligible for graduate student membership, a person must be actively pursuing a graduate degree, must not be employed full time, and must (1) be actively engaged in research leading to the improved understanding, planning, and operation of institutions of postsecondary education, or (2) be interested in the methodology and results of institutional research.

Section 5. To be eligible for emeritus membership, a person must be retired and must have been an active member of the Association for a minimum of five years immediately preceding retirement.

Section 6. Distinguished membership may be awarded to members or former members who have made distinguished contributions to institutional research. Nominations for distinguished membership shall be made to the Secretary. An affirmative vote of two-thirds of the Executive Committee shall be required for the awarding of distinguished membership. Persons who formerly held honorary membership shall hereafter hold distinguished membership.

Section 7. Only regular and distinguished members shall be eligible to vote on association business and hold elective office in the Association.

Section 8. The Executive Committee may, by affirmative vote of two-thirds of the members of the Committee, terminate the membership of any person who becomes ineligible for membership because of changes in professional activities or interests.

Section 9. Members whose dues are not paid within four months after the due date shall be automatically dropped by the Secretary from membership in the Association.

Article IV.
Officers

Section 1. The officers of the Association shall consist of the President, the Vice President, the Treasurer, the Secretary, the Immediate Past President, the Forum Chair, and the Associate Forum Chair.

Section 2. President. The President shall chair the Executive Committee and preside at the business meetings of the Association. The President shall also represent the Association in relations with other professional and educational organizations, foundations, and governmental agencies. The term of office of the President shall be one year, or until a successor takes office.

Section 3. Vice President. The Vice President shall serve as vice chairperson of the Executive Committee and shall represent the President when the latter is unable to perform the duties specified above. The Vice President shall succeed to the office of President at the termination of the one-year term as Vice President, or when a successor takes office.

Section 4. Treasurer. The Treasurer shall be responsible for the receipt and disbursement of all funds of the Association and for the establishment and maintenance of appropriate records of all fiscal transactions. The Treasurer shall ensure that all expenditures are within the approved budget and have been properly incurred under the policies of the Association. The term of office of the Treasurer shall be three years, or until a successor takes office.

Section 5. Secretary. The Secretary shall be responsible for the minutes of the meetings of the Executive Committee and of the annual and any special business meeting, the maintaining of the list of members of the Association, and the sending of notices. The Secretary shall be Membership Chairman. The term of office of the Secretary shall be three years, or until a successor takes office.

Section 6. Immediate Past President. The Immediate Past President shall chair and convene the Nominating Committee. The term of office of the Immediate Past President shall be one year, or until a successor takes office.

Section 7. Forum Chair. The Forum Chair shall be responsible for chairing the annual Forum, for organizing the program of the Forum, and for supervising the activities of the various committees and subcommittees established to support or develop Forum activities. The term of office of the Forum Chair shall be one year, or until a successor takes office.

Section 8. Associate Forum Chair. The Associate Forum Chair shall assist the Forum Chair by carrying out duties and responsibilities assigned by the Forum Chair. The Associate Forum Chair shall succeed to the office of Forum Chair at the termination of the one-year term as Associate Forum Chair, or when a successor takes office.

Article V.
Executive Committee

Section 1. The Executive Committee shall consist of the President, the Vice President, the Treasurer, the Secretary, the Immediate Past President, the Forum Chair, the Associate Forum Chair, and four Executive Committee Members-at-large.

Section 2. The Executive Committee shall, acting in concert, have full authority to act for and on behalf of the Association, except as otherwise specified in this Constitution, any amendments, and in the Bylaws. The Executive Committee shall be responsible for recommending a budget for approval by the membership at the annual business meeting, assuring an annual independent audit of the financial records, such duties as are specified in the Constitution and in the Bylaws, and such other duties as are required for the management of the Association's affairs.

Section 3. Two Members-at-large of the Executive Committee shall be elected each year. The term of office of each of the four Members-at-large shall be two years, or until a successor takes office.

Section 4. For purposes of incorporation, the Executive Committee may also be known as the Board of Directors.

Article VI.
Delegation of Responsibility

The Executive Committee shall have the authority to establish an office for the conduct of the Association's affairs, to employ an administrator, and to delegate to that person such responsibilities as are not in conflict with this Constitution, any amendments, and the Bylaws.

Article VII.
Meetings

The annual business meeting of the Association shall be held in conjunction with the annual Forum. Special business meetings may be called by the Executive Committee.

Article VIII.
Nominations and Elections

Section 1. There shall be a Nominating Committee consisting of the Immediate Past President and five members elected by the membership. The term of office of each member of the Nominating Committee shall be one year, or until a successor takes office.

Section 2. At least six months before the annual Forum, the Nominating Committee shall issue to the membership a call for nominations for the offices and positions for which the term is scheduled to expire.

Section 3. The Nominating Committee shall prepare and report to the Executive Committee, for transmission to the membership, a double slate of candidates for the Nominating Committee and one or more candidates for each of the other positions for which an election is to be held.

Section 4. The Executive Committee shall be responsible for ensuring the proper conduct of elections and for reporting the results to the membership.

Section 5. At least sixty (60) days before the annual Forum, the ballot shall be mailed to all voting members of the Association. The ballot shall contain the slate forwarded by the Nominating Committee and shall also make provision for writing in additional names for each position. To be counted, ballots must be postmarked no later than thirty (30) days and received no more than forty-five (45) days after the mailing date.

Section 6. In the event of a tie vote for a specific elective office resulting from the mailed ballots, a majority vote of the full membership of the Executive Committee shall resolve the tie.

Article IX.
Vacancies

Vacancies in any office or on the Executive Committee or the Nominating Committee shall be filled by appointment by the Executive Committee for the unexpired terms.

Article X.
Co mmittees

Section 1. The President, with the approval of the Executive Committee, shall establish such committees as shall be deemed necessary to carry on the activities of the Association.

Section 2. There shall be a Publications Board which shall operate under terms of reference reviewed and approved annually by the Executive Committee.

Section 3. There shall be a Professional Development Services Board which shall operate under Terms of Reference reviewed by the Executive Committee.

Article XI.
Affiliated Groups

Regional, provincial, state, or other interest groups whose purpose is to advance the practice of institutional research among their membership in ways consistent with the purposes of the Association may be recognized as affiliates.

Article XII.
Bylaws

Section 1. The Association shall, for the conduct of its affairs, adopt bylaws not inconsistent with this Constitution.

Section 2. Bylaws and amendments to them may be initiated by any of the following means:

a. through action originating in the Executive Committee and approved by a majority vote of that committee

b. through a petition submitted by any voting member of the Association and approved by a majority of the Executive Committee

c. through a petition signed by twenty-five (25) or more members of the Association and filed with the Secretary.

Section 3. The Executive Committee shall be responsible for printing any proposed bylaws or amendment(s) to them, if duly and properly initiated, and for submitting them to the voting members for vote (by either of the following means):

a. at an annual business meeting, provided that the proposed change has been filed with the Secretary thirty (30) days prior to the annual business meeting, or

b. by mail ballot.

Section 4. A bylaw or amendment to the Bylaws must be approved by an affirmative vote of the majority of (one of the following):

a. the members present and voting at an annual business meeting, in the case of Section 3(a) above, or

b. those members voting whose ballots shall have been postmarked on or before the thirtieth (30th) day and received on or before the forty-fifth (45th) day after the mailing of the ballots, in case of Section 3(b) above.

Section 5. Changes in the Bylaws shall become effective immediately after approval.

Article XIII.
Amendments

Section 1. Amendments to the Constitution may be initiated by any of the following means:

a. through action originating in the Executive Committee and approved by a majority vote of the Committee

b. through a petition submitted by any voting member of the Association and approved by a majority of the Executive Committee

c. through a petition signed by fifty (50) or more voting members of the Association and filed with the Secretary.

Section 2. The Executive Committee shall be responsible for printing the proposed amendment, if duly and properly initiated, and submitting it to the voting members by mail ballot.

Section 3. An affirmative vote by two-thirds of those members voting, whose ballots shall have been postmarked on or before the thirtieth (30th) day and received on or before the forty-fifth (45th) day after the mailing of the ballots, shall be required for the adoption of the amendment.

Section 4. Amendments to the Constitution shall go into effect thirty (30) days after adoption.

Article XIV.
Incorporation

The Association shall be incorporated as a non-profit corporation.

Article XV.
Quorum

Section 1. Twenty (20) members attending a business meeting of the Association shall constitute a quorum.

Section 2. A quorum at any meeting of the Executive Committee shall consist of six (6) members.

Article XVI.
Dissolution

Although it is intended that the term for which it is to exist is perpetual, in the event of dissolution, all assets of the Association shall be distributed only to an organization or organizations with the same or similar purposes that qualify for exempt status under section 501(c)(3) of the Internal Revenue Code of 1954.

Bylaws

Section 1. Notice of Meetings.

The Secretary shall be responsible for notifying all members of the date and place of the annual business meeting at least sixty (60) days prior to the Forum. Special business meetings may be called by the Executive Committee upon giving sixty (60) days written notice to all members.

Section 2. Calendar.

a. The membership year shall begin at the end of the annual business meeting at the Forum. (Persons paying dues on a calendar-year basis for 1981 shall be considered to be members in good standing until the end of the 1982 annual business meeting.)

b. The term of office for each position filled by election shall begin at the end of the annual business meeting at the next Forum.

c. The fiscal year shall begin June 1.

Section 3. Membership Fee.

a. The membership fee structure shall be reviewed periodically by the Executive Committee, and any proposed change shall be submitted to the voting members for consideration at the annual business meeting or by mail ballot.

b. A two-thirds vote of the members attending and voting at the annual business meeting or a two-thirds vote of those members voting, whose ballots shall have been postmarked on or before the thirtieth (30th) day and received on or before the forty-fifth (45th) day after the mailing of the ballots, shall be required for change in the membership fee structure.

Section 4. Procedure.

The latest edition of *Robert's Rules of Order* shall govern all meetings of the Association insofar as they are applicable and not inconsistent with the Constitution and Bylaws of the Association.

Section 5. Guidelines for Affiliation with the Association for Institutional Research.

a. To apply for affiliation, the regional, provincial, state, or other group shall forward a request to the Secretary of the Association, to include:

(1) a statement giving the name and purposes of the group.

(2) a copy of the constitution and bylaws of the group, if such exist.

(3) a list of current members, or participants if membership is informal.

(4) the name of a person from the group, who is also a member of the Association, designated to serve as liaison.

b. The Executive Committee of the Association will act on all requests for affiliation.

GUIDELINES FOR AWARDING DISTINGUISHED MEMBERSHIP

Article III, Section 6, of the 1978 Constitution of the Association for Institutional Research states: "Distinguished membership may be awarded to members or former members who have made distinguished contributions to institutional research. Nominations for distinguished membership shall be made to the Secretary. An affirmative vote of two-thirds of the Executive Committee shall be required for the awarding of distinguished membership. Persons who formerly held honorary membership shall hereafter hold distinguished membership."

General Policy

Distinguished membership should be a meaningful recognition bestowed sparingly and only to those persons who have made significant and substantial contributions to the field of institutional research. Distinguished membership should not be used to recognize persons retiring from active service in institutional research, who perhaps may have earned "emeritus" rather than "distinguished" membership.

Distinguished membership status shall be awarded for the lifetime of the individual.

Criteria

A member or former member nominated for distinguished membership should meet the following qualifications:

1. Has contributed substantially to the field of institutional research over a long period of time, either as an active participant in institutional research or through a supporting role
2. Through the work and/or research, the influence of this person has been felt on postsecondary education
3. If active in institutional research, has contributed to widely disseminated research and has been an active and contributing member of the Association for Institutional Research
4. If in a "supporting" role (i.e., president, college teacher, etc.), has widely publicized and supported the development of institutional research and has contributed to research in the field.

Procedure for Selection

1. During the fall of each year, members of AIR may submit nominations for distinguished membership to the Secretary. The Secretary will contact the nominee to obtain pertinent professional data.
2. All nominations shall be screened by the Membership Committee and additional information obtained, if desired, on any person so recommended.
3. Nominations for distinguished membership to the Executive Committee shall be made by a two-thirds affirmative vote of the Membership Committee.
4. As specified in the Constitution, an affirmative vote of two-thirds of the Executive Committee shall be required for distinguished membership.
5. The occasion and manner of recognizing distinguished members shall be determined by the Executive Committee.
6. Criteria and procedures for selecting distinguished members shall be distributed to all AIR members.

Membership Dues for Distinguished Members

No membership dues nor Forum fees shall be assessed for distinguished membership.

GUIDELINES FOR AWARDING EMERITUS MEMBERSHIP

Article III, Section 5, of the 1978 Constitution of the Association for Institutional Research states: "To be eligible for emeritus membership, a person must be retired and must have been an active member of the Association for a minimum of five years immediately preceding retirement."

General Policy

Emeritus membership is a status awarded by the Executive Committee upon recommendation of the Membership Committee to a person meeting the criteria on emeritus membership.

Emeritus members shall receive all rights and privileges of regular membership, except the right to vote or to hold elective office.

Emeritus membership shall be awarded for the lifetime of the member.

Criteria

1. A member shall be considered to have retired when he/she has formally terminated his/her regular professional employment through retirement. Continuation or resumption of employment on a part-time or non-continuing basis following retirement shall not affect eligibility for emeritus membership status.
2. The five-year continuous active AIR membership requirement shall be restricted to the regular membership category (including distinguished members).

Procedure for Selection

1. Each year at membership renewal time, members shall be given the opportunity to designate that they have formally retired.
2. Members should notify the Association of eligibility for emeritus status.
3. The Executive Secretary shall monitor all requests for emeritus membership, insuring that the minimum membership requirement has been met.
4. Emeritus members must notify the Executive Secretary annually to maintain membership benefits.
5. Criteria and procedures for obtaining emeritus membership status shall be distributed to all Association members.

Membership Dues for Emeritus Members

No membership dues nor Forum fees shall be assessed to emeritus members.

GUIDELINES FOR THE AIR OUTSTANDING SERVICE AWARD

An Outstanding Service Award (OSA) has been created to recognize members or former members who have made extraordinary and sustained contributions to the Association for Institutional Research for a period of at least five years. Nominations for OSA shall be to the secretary of the Association. An affirmative vote of two-thirds of the Executive Committee shall be required for the award. The OSA may be awarded posthumously.

General Policy

The Outstanding Service Award (OSA), bestowed sparingly, should be a meaningful recognition of those individuals who have provided exemplary service and professional leadership to the Association for Institutional Research and who have actively supported and facilitated the goals and constitution of AIR.

The OSA is not intended to duplicate the types of individual membership categories specified in the Constitution, Article III. The OSA differs from the Distinguished Membership Award in that the former is restricted to members or former members who have exhibited outstanding service to the Association, whereas the latter is awarded to members or former members who have made distinguished contributions to the broad field of institutional research. The two awards are mutually exclusive; however, a member can be eligible for both awards.

Criteria

The nominee for the Outstanding Service Award (OSA) must have been an AIR member for at least *five years* and not a member of nor a candidate for the Executive Committee during the year the person is nominated. In addition, the nominee must meet at least two of the following three general criteria categories:

1. Has been a member of an AIR committee or board as specified in the Constitution, Article X.
2. Has been an officer of or a recognized leader in the establishment of a regional, provincial, state, or special interest group which is associated with AIR.
3. Has made a professional contribution to AIR by being actively involved in a combination of the following:
   a. Presented contributed papers at the AIR Forum.
   b. Organized, offered, or acted as a primary participant in workshops at the AIR Forum, AIR regional workshops, or workshops sponsored by affiliated AIR groups.
   c. Participated in seminars at the AIR Forum.
   d. Chaired contributed paper and/or special interest group sessions at the AIR Forum.
   e. Contributed in some other specific and significant way which has advanced the professionalization of AIR.

Application of Criteria

The criteria outlined above are largely quantitative in nature and serve as minima for nominee consideration. A nominee meeting these criteria is *not assured selection*. Rather, the spirit of the OSA has a qualitative dimension as well. The award is intended to recognize individuals who have made noteworthy personal contributions to the Association. Therefore, supportive nomination letters should emphasize qualitative as well as quantitative assessments of the nominee's contributions.

Procedures for Selection and Recognition

1. During the fall of each year, AIR members may submit nominations for Outstanding Service Award to the Secretary. The Secretary will contact the nominee to obtain pertinent professional data and specific information that the person meets the criteria outlined above.
2. The primary nominator should ask at least two other AIR members to provide supporting letters of recommendation to the Secretary.
3. All nominations shall be screened by the Membership Committee.
4. An affirmative vote of two-thirds of the Membership Committee shall be required in order to forward a nomination to the Executive Committee.
5. An affirmative vote by two-thirds of the Executive Committee shall be required for approval of an Outstanding Service Award.
6. The occasion and manner of recognizing the Outstanding Service Award recipient(s) shall be determined by the Executive Committee.
7. Criteria and procedures for selecting Outstanding Service Award recipients shall be distributed to all AIR members.

MINUTES OF THE 1983 ANNUAL BUSINESS MEETING

The Sheraton Centre, Toronto, Ontario
May 25, 1983

The following items are appended to the original of these minutes:

A. Packet of agenda materials distributed to each Forum registrant, including the following items:
   1. Agenda for the meeting *(A 1)*
   2. Minutes of the 1982 Annual Business Meeting *(A 2)*
   3. Written reports of the officers and committees *(A 3–A 18)*, including preliminary 1983–84 budget proposal *(A 17)*

B. Revised budget proposal.

The meeting was called to order by the president, William F. Lasher, at 7:35 a.m. A quorum was present.

1. **Minutes of the 1982 Annual Business Meeting** *(A 2)*
   Action: Motion (Gerald Lunney) and second that the minutes be approved without correction. The motion carried without opposition.

2. **Reports of Officers and Committees**
   The president asked that each officer or committee chair make a few brief remarks to highlight or amplify the written report. *(Only items of import not included in the written report will be noted in these minutes.)*

   a. President/Executive Committee *(William F. Lasher) (A-3)*: None

   b. Commission to Reassess the Purposes and Objectives of the Association *(Donald J. Reichard) (A-4)*: Reichard called attention to a panel of past presidents and an open hearing, both of which would provide opportunity at the Forum for discussion of issues being considered by the Commission, and invited members to attend.

   c. Treasurer/Finance Committee *(Hans H. Jenny)*: Jenny reviewed the year-end financial statement for 1981–82 *(A-5)*, referred to additional material which he had prepared *(Appendix B)* which also showed 1982–83 budget and estimated actuals, a revised 1983–84 budget proposal, and projections for 1984–85.
   Action: Motion (Jenny) and second to approve a revenue budget of $164,100 and an expense budget of $161,200, as proposed by the Executive Committee. Discussion and a vote were deferred until later in the agenda.

   d. Executive Secretary/Executive Office *(Jean C. Chulak) (A-6)*: Chulak reported that the 1982–83 Executive Committee had approved immediate purchase of a microcomputer for the Executive Office.

   e. Immediate Past President/Nominating Committee *(William L. Tetlow) (A 7)*: None

   f. Vice President/Site Selection & Future Forum Arrangements Committee *(W. Sam Adams) (A-14)*: Adams asked that persons interested in serving as Forum hotel negotiator refer to the call for proposals included in the Forum newsletter, *The Morning Air*.

   g. Secretary/Membership Committee *(Jack E. Rossmann) (A-8)*: Rossmann requested input from members regarding methods for reaching and recruiting potential members.

   h. Publications Board *(Marilyn McCoy) (A-9)*: McCoy expressed gratitude to Horace Griffitts and Paul Jedamus, whose three-year terms on the Board are expiring. Lasher presented to Richard R. Perry, retiring editor of *The AIR Professional File*, a resolution expressing appreciation for his six years of editorial service.

   i. Professional Development Services (PDS) Board *(Cynthia A. Linhart in the absence of Laura E. Saunders) (A-10)*: Linhart noted that she and Mark Johnson were completing

their terms on the Board and that Mary Martin Bryngelson and Jeff Seybert had been appointed to three-year terms to replace them.

j. Associated Groups Committee *(Oscar T. Lenning, not present) (A-11):* None

k. Higher Education Articulation Committee *(Denise Strenglein) (A-12):* None

l. Committee for International Liaison *(William L. Tetlow) (A-13):* Tetlow noted that a major concern of this committee will be to determine the form of the AIR-international relationship.

m. Forum Chair/1983 Forum Committee *(Mantha V. Mehallis) (A-15):* Mehallis noted the successful use of an electronic mail system between her office and local arrangements personnel. She reported that Forum registration was about 665 at that point in time. She urged members to visit those vendors who were exhibiting at the Forum—noting, however, that there were not as many as had been hoped for.

n. Associate Forum Chair/1984 Forum Committee *(Donald M. Norris) (A-16):* Norris announced that the 1984 Forum theme will be "The Revolution in Administrative Roles in Higher Education."

He introduced Horace F. Griffitts, 1984 local arrangements chair, who enthusiastically invited everyone to Fort Worth for the Twenty-Fourth Annual AIR Forum, May 6–9, 1984.

Griffitts noted hotel rates of $52 single and $32 double, per person, at the Hyatt Regency and $37 single and $22 double at the Metro Center. Upchurch Travel in Fort Worth will serve as the official travel agency.

3. **Proposed Budget for 1983–84** *(A 17 and B)*

Action: The president noted that Treasurer Jenny had previously moved approval of the revised revenue budget of $164,100 and expense budget of $161,200, as shown in Exhibit Five of Appendix B. The motion was seconded by Adrian Harris. Jenny made a few additional remarks; there was no additional discussion. the motion carried without opposition.

4. **Proposed 1984–85 Membership Dues Increase**

Action: Motion (Jenny) and second that the regular membership fee be increased by five dollars ($5), to forty dollars ($40), effective with the 1984–85 membership year.

Jenny noted that the relative weight of revenue from membership fees is quite small compared to the total budget (Exhibit Two, Appendix B) and that to a "disproportionate" degree we depend on revenues from the Forum. The motion carried.

5. **Old Business**
There was none.

6. **New Business**
There was none.

7. **Recognition**
Lasher recognized and expressed appreciation to *all* those who served the Association during 1982–83. He particularly acknowledged Nominating Committee Members Charles !. Brown, Joseph E. (Tim) Gilmour, Robert F. Grose, Margaret L. (Peggy) Moore, and Deborah J. Teeter; Executive Committee Members Oscar T. Lenning and Denise Strenglein; Forum Chair Mantha Mehallis; Treasurer Hans H. Jenny; and Immediate Past President William L. Tetlow.

8. **Report of the Tellers Committee** *(Lasher) (A 18)*

Lasher called attention to the Certification of Election Results, 1983, in the agenda materials and introduced the following newly elected individuals:

Vice President	Marvin W. Peterson
Treasurer	John S. Chase
Associate Forum Chair	John A. Muffo
Members-at-Large	Martha Mayo
	Norman P. Uhl
Nominating Committee Members	A. Nancy Avakian
	Jeanne E. Budig
	Robert I. Lewis
	Mark Meredith
	Joseph G. Rossmeier

9. **Installation of the 1983–84 President**

Lasher officially passed the gavel to Incoming President W. Sam Adams who made a few remarks outlining some of his objectives for 1983–84:

a. To obtain recommendations from the Commission to Reassess, for implementation in 1984–85 *(Lasher and Reichard)*
b. To establish a study committee to determine the feasibility and need for a Board of AIR Consultants *(Uhl)*
c. To support and increase AIR's commitment to international development *(Mayo)*
d. To hire a Forum hotel negotiator for 1987, 1988, and 1989 *(Adams)*
e. To increase Forum attendance *(Norris)*
f. To improve communication within the Executive Committee itself by wider use of interim telephone calls and use of a calendar *(Adams)*
g. To increase membership through innovative marketing strategies *(Rossmann and Chulak)*
h. To make the activities of the PDS Board more self-sustaining *(Saunders)*
i. To reevaluate the speaker travel grants program for Associated Groups *(Rossmann)*
j. To maintain a strong financial responsibility regarding the budget—maintaining flexibility but being realistic *(Chase)*
k. To maintain and enhance the relationship with other major higher education associations *(Adams and Peterson)*
l. To maintain and encourage the highest quality of AIR publications *(McCoy)*
m. To survey the membership on Forum site selection questions *(Adams)*.

The meeting adjourned at 8:47 a.m.

APPENDIX A

AGENDA AND BACKGROUND MATERIALS FOR THE ANNUAL BUSINESS MEETING

The Association for Institutional Research

Annual Business Meeting

Wednesday morning, May 25, 1983, 7:30 a.m.

Grand Ballroom—The Sheraton Centre Hotel

Toronto, Ontario

Agenda Item	A1	Background—Packet Page No.
1.	Minutes of the 1982 Annual Business Meeting	2
2.	Reports of officers and committees	
	a. President (*William F. Lasher*)	3
	—Executive Committee	3
	—Commission to Reassess the Purposes and Objectives of the Association (*Donald J. Reichard*)	4
	b. Treasurer/Finance Committee (*Hans H. Jenny*)	5
	c. Executive Secretary/Executive Office (*Jean C. Chulak*)	7
	d. Immediate Past President/Nominating Committee (*William L. Tetlow*)	11
	e. Vice President (See Site Selection/Future Forum Arrangements) (*W. Sam Adams*)	
	f. Secretary/Membership Committee (*Jack E. Rossmann*)	11
	g. Publications Board (*Marilyn McCoy*)	12
	h. Professional Development Services (PDS) Board (*Laura E. Saunders*)	14
	i. Associated Groups Committee (*Oscar T. Lenning*)	15
	j. Higher Education Articulation Committee (*Denise Strenglein*)	17
	k. Committee for International Liaison (*William L. Tetlow*)	17
	l. Site Selection/Future Forum Arrangements Committee (*W. Sam Adams*)	18
	m. 1983 Forum Chair Committee (*Mantha V. Mehallis*)	19
	n. Associate Forum Chair (1984 Forum Chair) (*Donald M. Norris*)	21
	—Introduction of 1984 Local Arrangements Chair Horace F. Griffitts	
3.	Proposed budget for 1983–84 (*Treasurer Jenny*) (*Note: Additional materials will probably be available in the Forum registration area.*)	21
4.	Proposed 1984–85 membership dues increase (*Treasurer Jenny*)	None
5.	Old business	None
6.	New business	None
7.	Recognition of outgoing officers, executive committee members, and others (*President Lasher*)	None
8.	Report of the Tellers Committee/Introduction of new officers, executive committee, and nominating committee members (*President Lasher*)	22
9.	Installation of the 1983–84 President (*President Lasher*)	None
10.	Adjournment	None

MINUTES OF THE 1982 ANNUAL BUSINESS MEETING

The Denver Hilton Hotel, Denver, Colorado
May 18, 1982

The following items are appended to the original of these minutes:

A. Packet of agenda materials distributed to each Forum registrant, including the following items:
   1. Agenda for the meeting *(A-1)*
   2. Minutes of the 1981 Annual Business Meeting *(A-2)*
   3. Written reports of the officers and committees (including 1981–82 financial information and 1982–83 projected budget for each area) *(A-3-17)*
   4. Proposed budget for FY 1982–83 *(page 6)*
B. FY 1981–82 Budget and Projected Actuals; FY 1982–83 Budget Proposal Development

The meeting was called to order by the president, William L. Tetlow, at 7:30 a.m. A quorum was present.

I. **Minutes of the 1981 Annual Business Meeting** *(A-2)*
Action: Motion (W. Sam Adams) and second that the minutes be approved without correction. The motion carried.

II. **Reports of Officers and Committees**
Tetlow asked that each officer/committee chair make a few brief remarks about his/her area of responsibility or report. *(Only items of import not included in those reports will be noted here.)*

A. President/Executive Committee *(William L. Tetlow)*: None. *(A-3)*
B. Treasurer/Finance Committee *(William L. Tetlow in the absence of the treasurer, Hans H. Jenny)*: None. *(A-4)*
C. Executive Secretary/Executive Office *(Jean C. Chulak)*: None. *(A-")*
D. Vice President *(William F. Lasher)*: Lasher stated that he plans to establish a "blue ribbon" commission during his term as president—to review the fundamental purpose (the role and scope) of the Association. *(No written report)*
E. Secretary/Membership Committee *(Jack E. Rossmann)*: Rossmann announced that the Executive Committee had acted on the recommendations of the Membership Committee and that three Outstanding Service Awards would be presented at the Awards Luncheon on May 19. He urged members to be thinking about nominations for next year. *(A-7)*
F. Immediate Past President/Nominating Committee *(George Beatty, Jr.)*: None. *(A-6)*
G. Publications Board *(William P. Fenstemacher in the absence of Board Chair Paul Jedamus)*: Fenstemacher noted that the Board had met on Sunday, May 16, to review the status of all board projects. *(A-8)*
H. Professional Development Services (PDS) Board *(Donald J. Reichard)*: None. *(A-9)*
I. Associated Groups Committee (formerly Regional/Special Interest Groups Committee) *(Oscar T. Lenning)*: None. *(A-10)*
J. Higher Education Association Articulation Committee *(Denise Strenglein)*: None. *(A-11)*
K. Committee of Correspondents *(William L. Tetlow for Charles H. Belanger)*: The committee met on May 17 and will recommend that the committee name be changed to "Committee for International Liaison." *(A-12)*
L. Site Selection *(William F. Lasher)*: None. *(A-13)*
M. Future Forum Arrangements *(William F. Lasher)*: None. *(A-14)*
N. 1982 Forum Committee *(Daniel R. Coleman)*: Coleman announced tentative Forum registration of 728 persons. He asked for feedback (to the 1983 Forum chair) on the new Forum components: table topic and symposia sessions, SIG Fair, exhibits, added social mixers. *(A-15)*
O. Associate Forum Chair *(1983 Forum Committee—Mantha V. Mehallis)*: The theme of the 1983 Forum will focus upon the integration of human resources and technology. It will be held at the Sheraton Centre, Toronto, Ontario, May 23–26. *(A-16)*

Mehallis introduced Daniel W. Lang, local arrangements vice chair, who issued an invitation to Toronto. He noted that the Forum coincides with a major Canadian holiday, Victoria Day, and that the conference will be held from Monday through Thursday (instead of Sunday–Wednesday).

III. **Proposed Budget** *(William L. Tetlow in the absence of the treasurer)*
Tetlow referred the members to *Page 6* of the Agenda Packet and to *Appendix B*. Vice President Lasher then assumed the chair so that Tetlow could explain and answer questions about the above items and present the proposed budget. Overhead displays presented 1981–82 and projected 1982–83 information in "pie chart" format.
Action: Motion (Robert Winter) and second that the proposed 1982–83 budget of $152,375 (Page 6, Column 3, of the Agenda Packet) be approved. There was brief discussion.
Motion (Gerald H. Lunney) and second to call the question. By voice vote, the motion to call the question carried.
The main motion, by voice vote, carried without any "no" votes.

IV. **Old Business** (None)

V. **New Business** (None)

VI. **Recognition of Outgoing Officers**
Tetlow recognized the following persons who were going off the Executive Committee: George Beatty, Jr. (to whom the traditional Past President's Plaque was presented), Daniel R. Coleman (1982 Forum chair), Paul Jedamus (member-at-large/publications board chair, but not present), and Donald J. Reichard (member-at-large/professional development board chair).

VII. **Tellers Committee Report** *(William L. Tetlow for Paul J. Carney)*
Tetlow referred members to the vote tallies displayed in Appendix A-17 (constitutional and bylaw amendments/dues increase/officers). He then introduced the following newly elected officers: W. Sam Adams (vice president), Donald M. Norris (associate Forum chair), Marilyn McCoy (member-at-large, but not present), Laura E. Saunders (member-at-large), and nominating committee members Deborah J. Teeter, Margaret L. (Peggy) Moore, Charles I. Brown, Robert F. Grose, and Joseph E. (Tim) Gilmour.

VIII. **Installation of Officers**
The gavel was formally passed to William F. Lasher, president for 1982–83, who called for any additional business to come before the meeting. There was none.

The meeting adjourned at 8:57 a.m.

A2

A3

ANNUAL REPORT OF THE PRESIDENT/EXECUTIVE COMMITTEE

William F. Lasher

Committee charge: To carry out the Association's business and act on behalf of the Association except as otherwise specified in the constitution, any amendment, and the bylaws.

Committee members: William F. Lasher (president/chair), W. Sam Adams (vice president), William L. Tetlow (immediate past president), Hans H. Jenny (treasurer), Jack E. Rossmann (secretary), Mantha V. Mehallis (Forum chair), Donald M. Norris (associate Forum chair), and Oscar T. Lenning, Marilyn McCoy, Laura E. Saunders, and Denise Strenglein (members-at-large).

Original budget: $12,600 (including $500 president's discretionary fund).

Activity

At the first meeting of the 1982–83 Executive Committee, held at the Denver Forum, I outlined five main objectives for the year:

1. To get the Association "back on an even keel" after two somewhat confusing years following the change in the membership year.
2. To further the work of the Professional Development Services (PDS) Board and to try to make its activities self-sustaining.
3. To continue to encourage state/provincial/regional groups.
4. To continue to point towards the Annual Forum as the Association's showcase.
5. To launch a reassessment of the purposes of AIR.

The results of our efforts in these broad areas have been as follows:

1. The "business" of the Association has gone very well this year. We have continued to manage the transition beyond the fiscal and member year changes begun two years ago. As you will see in the treasurer's report, the Association's financial position continues to be strong. Combining the fiscal and membership years has improved cash flow dramatically. This should improve our ability to do sound financial planning. As you will see in the secretary's report, however, membership is down from last year. The unusual seventeen-month length of that year is responsible for some of this decline, but we are concerned with this situation, nevertheless. The Executive and Membership Committees are monitoring this situation continuously, and recommendations on marketing strategies will be developed as needed.

2. A full range of pre-Forum professional development opportunities (PDOs) have been developed under the auspices of the PDS Board. You yourselves will be able to evaluate the effectiveness of these programs. Other "non-Forum" opportunities are under development as well. Unfortunately, the goal of self-financing has not yet been reached. This will continue to be an objective in 1983–84.

3. Regional institutional research groups are more important to AIR now than ever before. Our programs for affiliation and financial support have continued as in the past. I have long believed that the speaker travel grants are an important part of these programs. However, it is time to rethink this grant program to see if it provides the best support to regional groups. This reevaluation has begun.

4. The Annual Forum continues to be our most important event of the year. Again, you can judge firsthand the quality of the result of all the planning and arrangements by everyone involved in this tremendous and vitally important undertaking.

   As you will read in the reports of the Future Forum Arrangements/Site Selection Committee, the work to explore ways of improving Forum site planning and negotiations has continued. New guidelines have been developed, and efforts are under way to make the Association's site negotiations more consistent and more professional.

5. Given the changing environment of higher education, an ad hoc commission of twelve highly respected AIR members has been established to reassess the Association's purposes and objectives. The Commission will provide the Executive Committee advice and counsel concerning how the Association can help members and their institutions react to this changing environment, and how it can serve the different kinds of individuals now involved in decision making. The Commission has been working diligently to respond to a set of specific questions contained in its charge. At this year's Forum, it will file an interim report with the Executive Committee and seek your input concerning the issues with which it is dealing. This reassessment will continue into 1983–84.

In addition to these matters, the Executive Committee has also done the following:

1. Developed and improved the Association's management information by working with the Fact Book Committee

(established late last year). This project is proceeding nicely, and the resulting information is already being used to support policy and decision making.
2. Reviewed and modified (where necessary) the Association's insurance coverages.
3. Updated and improved association policies pertaining to refunds, handling charges, travel reimbursement, sale of mailing labels, employee holidays, and Forum fee waivers.
4. Renewed the publication contract for *Research in Higher Education*.
5. Entered into a contract to republish the first sixteen issues of the *AIR Professional File* in a single, bound volume.
6. Accepted an invitation to become part of the NCHEMS Advisory Council. This body provides advice to the NCHEMS board and management concerning priorities for research and development for improving higher education planning and management, and evaluates NCHEMS products and services.

For other specific items, please refer to the various reports which follow.

In summary, it has been a busy, productive year. We have tried to improve the Association in many areas, while being sensitive to the need for financial restraint. We hope we have succeeded.

Line Item	Original Budget (Annual Meeting)	Revised Budget (E.C. Mtgs 9/82 & 3/83)	Estimated Actual (to come at Forum)	Proposed Budget for 1983–84
Telephone	$1,125	$1,125	.....	$1,300
Postage	25	25	.....	100
Printing	-0-	-0-	.....	50
Travel/Per Diem	10,950	10,950	.....	13,500
Other Meeting Expenses	-0-	-0-	.....	200
President's Discretionary	500	100*	.....	500
Total	$12,600	$12,200	.....	$15,650

*During 1982–83, $400 was transferred for basic budget to the ad hoc Commission to Reassess the Purposes and Objectives of the Association. Also, the Fact Book Committee was assigned a basic budget of $200 from general contingency. For 1983–84, the Commission has a separate proposed budget of $500.

A4

INTERIM REPORT OF THE COMMISSION TO REASSESS THE PURPOSES AND OBJECTIVES OF THE ASSOCIATION

Donald J. Reichard

Commission charge

In completing its work by the 1984 Forum in Fort Worth, the Commission has been asked to answer the following questions:

1. Should the Association's fundamental purposes be modified? If so, what should these changes be?
2. What steps should be taken for the Association to become more visible to individuals who are not called institutional researchers but who are actually doing institutional research?
3. Should the Association change its name? If so, to what?
4. What should the role of institutional research be in the higher education environment of the 1980s and 1990s?

Commission members: Donald J. Reichard (chair), Frank S. Black, John S. Chase, James W. Firnberg, Robert F. Grose, Stephen R. Hample, Richard B. Heydinger, Paul Jedamus, Lois E. Torrence, Robert A. Wallhaus, Janis H. Weiss, and Robert Winter.

Budget: $400 (transferred from president's discretionary fund)

Background

The Commission to Reassess the Purposes and Objectives of the Association was appointed by President William F. Lasher in September 1982. As with the efforts which led to *A Declaration on Institutional Research*, authored by the late Sidney Suslow, and the Long-Range Planning Survey Report in 1978, the Commission has been asked to reconsider what institutional research actually is and the role which the Association should play in advancing the profession.

Activity

The Commission began its work with the exchange of correspondence and background material in October. A Delphi-like process was employed in further rounds of correspondence initiated in November, January, and March which were intended to provide an opportunity for sharing initial thoughts and reactions to the statements of other commission members.

Among the major questions relating to purposes of the Association to be considered are (1) development of a major emphasis relating to planning, (2) clarifying AIR's commitment to the professional development of its members in the Association's statement of purpose, (3) provision of membership and services to persons employed in institutional research settings outside of postsecondary education, (4) facilitating the exchange of methodologies and techniques from individuals or organizations engaged in institutional research-related activities in other organizational settings, (5) relationship to other individually or institutionally based professional organizations, including the possibility of establishing a Washington, D.C. office, and (6) recognizing AIR's commitment to the development of state, regional, and international affiliated groups in the Association's statement of purpose.

In considering how the Association might become more visible to individuals not formally engaged in institutional research, the Commission will solicit views from a number of areas including academic affairs offices (Heydinger), budget and financial officers (Winter), presidents (Firnberg), state coordinating/governing boards/legislators (Wallhaus), Washington organizations (Torrence), planners/planning (Jedamus), registrars (Grose), and secondary education, health organizations, and other non-postsecondary settings (Black).

The Commission decided to pass by the question of a change in name for the Association for the moment pending outcomes associated with the consideration of the other questions posed in the charge to the Commission.

The fourth question, relating to the role of institutional research in the higher education environment of the 1980s and 1990s, is being pursued primarily by a subgroup of commission members including Paul Jedamus, Steve Hample, and John Chase. Among questions to be considered are: (1) the roles of institutional researchers/policy analysts/information specialists in the future, (2) the very survival of the institutional research function and institutional researchers as individuals in an increasingly politicized environment, (3) the possible linkages between institutional research and planning and/or planners, and (4) the possible implications which changes in technology and the availability of increasingly complex data bases may have for AIR and its constituent interest groups.

Objectives for 1983–84

The exchanges of correspondence and phone calls prior to the Toronto Forum have been valuable, but they are no substitute for the face-to-face meetings of commission members at the Forum and the open hearing which has been scheduled in order to solicit input from the members. The Forum meetings and the Commission's open hearing should result in finalizing a timetable and plan of action which will enable the Commission to submit its report to the Executive Committee by the 1984 Forum.

Persons wishing to make their views known are urged to contact members of the Commission.

A5
ANNUAL REPORT OF THE TREASURER/FINANCE COMMITTEE
Hans H. Jenny

Committee charge: To assess proposed program and budget requests for their overall impact on the Association's finances and to make recommendations to the Executive Committee.

Committee members: Hans H. Jenny (chair), William F. Lasher, William L. Tatlow, W. Sam Adams, and Martha V. Mehallis (all ex officio).

Original budget for the treasurer (included in the "general administration" function): $200.

Line Item	Original Budget (Annual Meeting)	Revised Budget (E.C. Mtgs 9/82 & 3/83)	Estimated Actual (to come at Forum)	Proposed Budget for 1983–84
Telephone	$150			$150
Postage	25			25
Printing	25			25
Total	$200	No Change		$200

As 1981–82 came to an end, so did the Association's transition fiscal and membership years. Revenue and expenditure patterns became more normal, and the Association showed a year-end surplus of $15,486.40. The ending Fund Balance (May 31, 1982) was $73,576.48.

The financial condition is summarized in the accompanying tables. The line-item report shows how money was spent in each of the major program areas. Total revenues were $169,821.97 (approximately $35,000 of which was from unbudgeted sources such as Forum event tickets and workshop fees). Total expenses were $154,335.57 (including approximately $30,000 for corresponding unbudgeted expense).

As promised one year ago, the Executive Committee made a deliberate effort to keep expenditures as low as possible in order to bring the budget back into balance by the end of 1981–82—without an increase in membership dues for that year. We are pleased to be able to report that this objective was achieved.

Please note: The summary which follows is based on the executive secretary's year-end financial report—which does not include allocation of salaries and wages nor in-kind revenue from Florida State University and its allocation. The annual CPA audit, done by Catledge, Sanders and Sanders, made a net adjustment of + $7.00 to the Fund Balance which is shown in this summary. The audit report also included in-kind revenue/expense as well as allocation of salaries and wages. Copies of the report are available from the AIR Executive Office.

FINANCIAL REPORT
June 1, 1981–May 31, 1982

Table 1

ASSETS, LIABILITIES, AND FUND BALANCE

Petty Cash		$ 10.51
Checking Passbook Savings Accounts		16,757.22
Certificate of Deposit		14,150.35
Ready Assets Trust (Merrill Lynch)		105,084.80
Prepaid Expense		2,240.46
Accounts Receivable		9,661.37
Furnishings & Equipment	$ 5,365.81	
less accumulated depreciation	(2,748.05)	2,617.76
Total Assets		$150,522.47
Liabilities		
Account Overdraft		$ 623.16
Taxes Payable (payroll, excise, sales)		2,301.49
Subscriptions (*RIHE*) Payable		1,409.00
Other Accounts Payable		33,563.81
Deferred Dues Revenue (for 1982-83 year)		39,048.53
Total Liabilities		$ 76,945.99
Fund Balance		$ 73,576.48
Total Liabilities and Fund Balances		$150,522.47

Table 2

CHANGE IN FUND BALANCE

Fund Balance June 1, 1981	$ 58,090.08
Fund Balance May 31, 1982	$ 73,576.48
Change in Fund Balance	$ 15,486.40

Table 3

REVENUE

	Total Actual Revenue	Total Budgeted Revenue		Membership Dues Fees	Forum Registration Fees	Publication Sales	Dividends Interest	Miscellaneous Sources	Reserves		Total Unbudgeted Revenue
Revenue	$169,821.97	$135,351.19		$34,815.31	$ 90,348.80	$1,772.86	$7,775.59	$ 538.13			$34,470.78
1981-82 Adjusted Budget (3/82)	N.A.	$136,000.00		$33,250.00	$ 49,375.00	$1,000.00	$6,000.00	$5,000.00	$1,375.00		N.A.
1981-82 Original Budget (5/81)	N.A.	$149,010.00		$45,000.00	$100,000.00	$1,500.00	$4,000.00	$ 500.00	$1,990.00		N.A.

Table 4

EXPENSE

Key: EC Executive Office OC Officers, Committees Line Item/Function	Total Actual Revenue	Total Budgeted Expense	General Administration	Nominations Balloting	Membership	Publications	Forum	Professional Development	Other Committees	Contingency Capital Equipment	Total Unbudgeted Expense
A Salaries, Wages (EC)	$ 35,372.95	$ 35,372.95	$35,372.95								
Fringe Benefits (EC)	5,252.04	5,252.04	5,252.04								
Other Personnel Services (EC)	2,929.11	2,929.11	2,929.11								
Honoraria (OFF/Gifts (OC)	9,351.46	2,666.15	219.27			$ 500.00	$ 1,167.00	$ 436.92	$ 24.96		$ 6,681.33
Subtotal A	$ 52,905.56	$ 46,220.25	$43,773.37	0	0	$ 500.00	$ 1,167.00	$ 436.92	$ 24.96		$ 6,681.33
B Professional Services	$ 2,299.10	$ 2,299.10	$ 2,299.10								
Telephone	5,575.25	5,448.01	1,663.77	$ 427.22	$ 63.35	$ 41.50	$ 606.92	$ 146.41	$ 96.51		$ 127.24
Postage Shipping	9,352.47	8,247.41	763.89	966.45	3,392.20	222.92	2,439.04	155.05	17.96		105.06
Printing Typesetting	29,265.08	27,407.22	1,089.90	998.15	5,545.98	9,569.15	8,624.33	80.24	316.47		1,657.87
Stationery Supplies	4,689.80	4,961.30	2,531.71		653.62		1,661.31	14.00			98.30
Computing Services	2,411.65	1,792.80	1,663.66				129.24				614.75
Advertising Promotion	2,464.45	2,194.25	85.50			308.64	1,839.12				270.19
Publications Reference	285.00	55.00	55.00								230.00
Travel Per Diem	16,133.89	15,851.54	9,591.00			243.63	3,016.85	1,372.24	1,527.82		2,252.35
Other A/R Meeting Expense	20,183.24	3,585.46	253.15	4.38			3,251.31		75.21		17,167.78
Meeting Fees, other organ.	90.00	90.00	90.00								
Maintnce Rent (furn equip)	1,308.42	717.92	205.92				512.00				590.50
Depreciation (furn equip)	534.50	534.50	190.44		133.70	133.70	136.66				
Insurance Licenses Copyrights	833.00	833.00	833.00								
Service Charges Penalties	50.15	50.15	50.15								
Bad Debts	552.39	552.39	552.39								
Subtotal B	$ 98,049.11	$ 74,741.07	$24,162.86	$2,396.20	$10,791.88	$10,519.14	$22,697.56	$1,938.94	$2,033.57		$23,308.04
Subtotal A & B	$150,954.69	$120,961.32	$67,936.23	$2,396.20	$10,791.88	$11,119.14	$24,264.56	$2,375.76	$2,058.53		$29,891.37
MBR 82 Adjusted Budget (-5%)		$ 96,300.00	$71,400.00	$2,500.00	$11,750.00	$12,990.00	$26,270.00	$5,000.00	$2,550.00	$1,350.00	N/A
MBR 82 Original Budget (-5%)		$ 98,010.00	$73,170.00	$2,525.00	$11,750.00	$13,490.00	$26,270.00	$5,000.00	$2,550.00	$1,850.00	N/A

AE
ANNUAL REPORT OF THE EXECUTIVE SECRETARY/EXECUTIVE OFFICE
Jean C. Chulak

Charge: The executive secretary and the executive office staff are charged with providing administrative support to the officers, committees, and activities of the Association. In some cases, this is done with considerable direct working contact; in others, it is done quite independently, with delegated responsibility.

Original budget: Salaries/wages/contract services (unallocated) $50,340
All "general administration" line items (EO) $16,235

Status and activity

1. *Office space and staff.* We continue to find adequate the suite of rooms (750 sq. ft.) which we occupy in the graduate education building at Florida State University (FSU).

   The office is staffed by the full-time executive secretary, a full-time secretary (Annabel Dick), a part-time graduate assistant (Donna C. Smith and Julia M. Duckwall sharing the appointment, with Julia also helping us on an AIR-paid, occasional basis throughout the year), and a part-time, clerk-typist (Paula J. Lumb, who is a student). I can't say enough about the positive qualities of our executive office staff—who work together with diligence, good humor, professionalism, and genuine care to handle what sometimes seems to be an incredible number and variety of requests and projects. Even the occasional complaint is handled with concern and tact. We all owe them our thanks.

   AIR's arrangement with FSU was once again reviewed by both parties, was ratified by the AIR Executive Committee, and will continue without change for AY 1983–84. FSU provides AIR with the services of the graduate assistant, the office space and utilities, some limited word-processing services, and the loan of some furniture. We maintain a small library of materials which are made available to university students and faculty. The relationship has been most satisfactory. F. Craig Johnson serves as the official liaison between AIR and FSU.

2. *Professional activities.* I attended a meeting of the National Advisory Board of the ERIC Clearinghouse on Higher Education in Washington, D.C. in April. The Board meets once a year to provide counsel to the director and staff of the Clearinghouse. My term extends through the spring of 1984.

I continue to benefit from my personal membership in the American Society of Association Executives (ASAE). Although I did not attend any of the ASAE workshops or conferences this year, I found both their written materials and central office resources valuable.

3. *Financial administration.* Although there has not been any substantial change in the number of annual financial transactions, the change in the membership and fiscal years has created a heavier volume of springtime financial activity than we have had in the past. The overall effects of the change (improved cash flow, combined membership/Forum processing, etc.) far outweigh any disadvantages, but (as in other areas) this year has been one of transition for us.

The acquisition of a microcomputer (included in our 1983–84 budget proposal) and the subsequent computerization of our accounting functions should greatly improve our ability to process this heavy volume of financial transactions without the need to increase our staff.

We have continued to work with the treasurer and president to maximize earnings on excess cash. In addition to our continuing practice of operating our checking account in tandem with a savings or ready-assets account, we have made several other relatively short-term investments. As you will see from the treasurer's report, the Association continues to be financially healthy.

4. *Other general administration activities.* Working closely with the officers and committee chairpersons, we have continued to be responsible for preparing and distributing materials for meetings of the Executive Committee and for the Annual Business Meeting. We also have the responsibility for preparing minutes of these meetings.

Responsibility for maintenance of the Policy Manual rests with the Executive Office. This is one of many tasks which we expect will be immeasurably easier when we are able to use in-house word processing.

5. *Nominations/Balloting.* Our responsibilities and activities in this area have remained essentially the same as in previous years: sending the call for nominations (September 1); acknowledging and processing the responses; preparing and distributing relevant materials to members of the Nominating Committee; preparing and distributing the election brochure and ballot (February 15); and coordinating with the Tellers Committee the counting of ballots and certifying of the election (April 4).

6. *Membership.* We have a 1982–83 year-end membership of 1627. As you will note from the secretary's report, this is down somewhat from the total for that now-famous seventeen-month, transitional, 1981–82 membership "year." Although I believe we should be concerned with any decrease in membership, I do not believe this necessarily signals a continuing trend. Two possible contributing factors will be analyzed after the 1983 Forum: (1) whether a significant number of 1981–82 members were confused by the change in membership year and unintentionally allowed their memberships to lapse (our hope being that they will have realized that they are no longer on our membership rolls and will have reinstated their memberships, either in conjunction with Forum registration or independently); and (2) whether a significant number of potential members register for the Forum as non-members but never actually join the Association (1983 being our second year to measure this). In addition to assisting with the analysis of these factors, the Executive Office will continue to try to respond quickly and effectively to requests for information and to identify other potential new members and provide them with materials. We will be working with the membership chairman and regional leaders on this latter project.

The Forum continues to be the Association's focal point and most powerful recruiting device. Because of bulk mail delivery problems which have been reported to us, we will review with the Executive Committee alternative means of ensuring that members and other potential attendees receive program and registration materials in a timely fashion.

The first renewal notice for 1983–84 was mailed to members with the election materials on February 15. Responses have been coming in well, I believe, and when combined with new membership, totalled approximately 1000 on May 5. The new membership year begins on May 25, after the Annual Business Meeting. Non-renewed members will be sent a second notice, when cross-checking after the Forum has been completed. Those who have not paid after four months (September 25), will be removed from the roster.

The 1982–83 (current) membership directory has just been distributed *(AIR 1982–1983)*. Members will receive an update (only) to that listing in early fall *(AIR 1983–1984)*. After this year, the directory will be produced (with the proceedings) in late summer/early fall and will contain both the complete membership from the previous year and an update of new members to publication time.

7. *Placement.* The Placement Service continues to feel the effects of the recession—that is, there have been fewer positions listed and an increase in the number of individuals looking for a position. On April 30, there were 48 individuals registered with the Service and two positions listed (compared to thirty and four, respectively, last year in April). During the year, 424 monthly bulletins were sent to 41 different individuals. We received a total of 25 different position listings—the most in any one month being six in May 1982.

8. *Forum 1983.* We have worked closely with the Forum chair and members of her committee in the development, preparation, and distribution of program and registration materials as well as in planning for activity at the Forum itself. A number of activities, projects, and problems have required our consultation with the attorney and preparation of contracts or other legal documents.

I met in Toronto with the Forum chair and members of the Local Arrangements Committee as a side trip on my vacation last August. I also met with the Forum chair, associate Forum chair, and contributed papers chair in Fort Lauderdale in November. At that meeting, final program decisions were made and the sessions scheduled.

Materials prepared and distributed from the Executive Office have included the call for proposals, acknowledgements to the responses, packets of proposals to the review committees, acceptance/rejection letters, instructions to participants, the program book and registration form, and tickets and other materials for the registration packets.

Our staff processes all registrations, monitoring general registration status (membership/postmark) as well as workshop, PDO, and special event attendance. Records must also be kept and monitored for those who do not pay at the time they submit their forms. Again, we expect the computerized accounting system to help us with this in the future.

Annabel Dick and I will both be in Toronto to work on site with the Local Arrangements and Forum Committees.

9. *Forum 1984.* The 1984 Fort Worth Forum chair and local arrangements committee form an eager group, and we have already worked with them on a revised call for proposals (to be mailed about July 1; deadline for proposals October 1), on a "critical paths" document which outlines details of action and responsibility for the 1984 Forum, and on other matters. Our intention is to continue to refine the critical paths document (actually begun in 1983) so that it becomes a truly functional, though flexible, working plan for Forum execution.

10. *Publications.* We have spoken briefly already about the planned production of the yearbook in late summer or early fall (including proceedings of the Forum just past, membership listing for the year just ended—plus an update of new members to publication time, and officer/committee/governance information for the year ahead). Its timely production will require modification of priorities in the Executive Office to defer some less member-related items to the fall, but the result will be a more timely book which will, therefore, be more useful to members. (Please note again that the first issue in this new timetable will not repeat the 1982–83 membership, which has just been distributed in *AIR 1982–1983*, but will include a listing of new 1983–84 members up to publication time.)

In preparing the Forum proceedings section of *AIR 1982–1983*, we worked with the Forum publications editor and the general session speakers. We often find that the interesting, even spellbinding, speech does not necessarily translate easily into a written document of continuing useful reference, so an unexpected amount of editorial time is required. That was true in 1982.

There have been two twelve-page newsletters (summer and fall/winter) and one eight-page spring issue (not yet in the mail as this is written, but copies being brought to Toronto for the information of registrants who do not receive it before they leave for the Forum).*

Two *Professional File* issues have been distributed already this year, and two more are being mailed with the spring issue of the newsletter.* We have worked closely with the editor of the series and with individual authors in the preparation of the manuscripts for publication. We have also been working with the editor on the planned republication of the first sixteen issues in a single volume.

Sales of publications from our inventory have been steady, if not exciting, and we will more than make our budget this year. We anticipate that the new *Professional File* volume will be popular, as our loose-leaf sets have been. We will shortly prepare a new publications list and order form and will enclose it with one of the upcoming mailings to members. Also in the area of promotion and sales, we again prepared and distributed subscription cards for both *Research in Higher Education (RIHE)* and *New Directions for Institutional Research (NDIR)*. Although we do not process any *NDIR* subscriptions in this office, we do process payments for the special member subscriptions to *RIHE*—a total of 451 for the 1982 series and 259 so far this year for the 1983 issues.

*Postscript. These statements were too optimistic. The spring issue of the newsletter was incorporated into a sixteen-page summer issue in July 1983. *Professional Files* No. 15 and No. 16 were prepared and distributed at that time also.

11. *Professional development.* We have worked with the PDS Board chair and the Forum workshops and pre-Forum PDO chairpersons in the preparation of program and promotional materials as well as the scheduling of these sessions. This office monitors registration (since they have limited enrollment) and provides session leaders with information about the registrants and administrative instructions.

12. *Associated groups.* Each year we make contact with all AIR-associated groups of which we are aware, requesting that they update information about their liaison with AIR, general meeting and conference plans, and plans/desires for meetings at the Forum or participation in the SIG Fair. The newsletter carries notices of their coming events and reports related to their activities.

13. *Site selection/Future Forums.* Although no hotel contract has been prepared this year, we have consulted with the committee chairperson regarding future site selection/hotel negotiation procedures.

14. *Other activity.* The volume of miscellaneous requests for information, advice, and assistance continues to increase. We attempt to respond to requests as fully and helpfully as we can—within the bounds imposed by our limited staff, resources, and time.

Conclusion and plans for 1983–84

I expect that the acquisition of a microcomputer will cause us to make many changes in the way we do things in our office. We do, however, plan to make such changes cautiously and to continually evaluate their effectiveness. We will continue to call on the expertise of individual members of the Executive Committee and others as we make our decisions.

We like our small office and small staff and will continue to try to find effective ways—whether computerized or not—to meet the needs of the Association and its members without increasing either space or staff.

Some exciting things are being planned for the Association next year, and we look forward to being a part of them.

Line Item	Original Budget (Annual Meeting)	Revised Budget (E.C. Mtgs 9/82 & 3/83)	Estimated Actual (to come at Forum)	Proposed Budget for 1983–84
A. Salaries/Wages	$40,952	$40,952		$44,228
Fringe Benefits	6,388	6,388		7,042
OPS/Temporary	3,000	3,000		3,000
Subtotal A	$50,340	$50,340		$54,270
B. Professional Services	$2,400	$2,500		$2,500
Telephone	2,000	2,000		1,200
Postage	750	750		750
Printing	500	500		500
Stationery/Supplies	2,700	1,516		2,500
Computing Services	2,400	2,400		1,800
Advertising	75	75		-0-
Publications/References	100	125		125
Travel/Per Diem	2,500	2,850		750
Meeting Fees	250	250		500
Maint/Rent (furn/equip)	300	300		400
Depreciation (furn/equip)	225	550		600
Licenses/Insurance	1,000	1,000		1,000
Service Charges/ Penalties	35	35		25
Bad Debts	1,000	1,384		1,000
Subtotal B	$16,235	$16,235		$13,650
Total A&B	$66,575	$66,575		$67,920

A7

ANNUAL REPORT OF THE IMMEDIATE PAST PRESIDENT/NOMINATING COMMITTEE

William L. Tetlow

Committee charge: To prepare a slate of nominees for elective office.

Committee members: William L. Tetlow (chair), Charles I. Brown, Joseph E. (Tim) Gilmour, Robert F. Grose, Margaret L. (Peggy) Moore, and Deborah J. Teeter.

Original budget: $1,800

Activity

The Nominating Committee conducted one meeting at the 1982 Forum in Denver for the purpose of reviewing basic criteria for potential nominees and deciding on the schedule and logistics for subsequent telephone conference calls.

At that meeting, the Committee decided that the qualifying guidelines for various offices that had been adopted and refined by previous committees reflected the desires of the membership and would be continued. The Committee decided to prepare a double slate for all offices, even though the constitution and bylaws do not require such for all offices.

In addition to the call for nominations from the general membership, the chairman sought nominations from the elected leaders of all AIR-affiliated groups. The Executive Office subsequently prepared a detailed information packet on all nominees.

Conference telephone calls were conducted on November 17, December 8, and December 14. In the first call, potential nominees for all officer positions were determined. The chairman next telephoned each nominee for confirmation. Prior to the second call, a reference chart was developed which indicated the following information on all nominees: gender, institutional type and size, geographic region, position title, and prior AIR service.

In the second conference call, nominees for associate Forum chair and at-large positions were determined and subsequently confirmed. The subject of the third call was the slate of nominees for the Nominating Committee. All those candidates were subsequently confirmed.

Recommendation

All members of the Nominating Committee felt that the conference call method was most effective, efficient, and inexpensive, and recommended its continued use.

Line Item	Original Budget (Annual Meeting)	Revised Budget (E.C. Mtgs 9/82 & 3/83)	Estimated Actual (to come at Forum)	Proposed Budget for 1983–84
Telephone	$500	$510		$550
Postage	650	597		700
Printing	650	928		935
Other Meeting Expenses	-0-	15		15
Total	$1,800	$2,050		$2,200

A8

ANNUAL REPORT OF THE SECRETARY/MEMBERSHIP COMMITTEE

Jack E. Rossmann

Committee charge: To seek out new members for the Association; to ensure that current members receive the basic membership services; and to screen and recommend nominees for Distinguished Membership and the Outstanding Service Award.

Committee members: Jack E. Rossmann (chair), Eric A. Hillman, W. Kevin Hunt, Donald D. Kerlee, Mary P. Martin, Thomas McAlpine, Thaly Nilsson, Steven F. Schomberg, and Helen S. Wyant.

Original budget for the membership function (including the Executive Office): $11,000.

Activity

1. Ways to maintain and increase membership were discussed with the Executive Committee. It was agreed that state and regional association leadership would be asked to assist through personal letters and contacts.
2. Nominations for the Outstanding Service and Distinguished Member Awards were reviewed, and recommendations were made to the Executive Committee.

Count

Membership type	1975	1976	1977	1978	1979	1980	1981–82	1982–83
Distinguished	4	4	4	4	4	4	5	4
Emeritus	–	–	3	7	10	13	17	20
Regular								
New and reinstated	341	296	400	438	473	398	455	263
Renewed	782	877	901	1047	1166	1283	1324	1285
Graduate								
New and reinstated	17	20	25	33	30	36	40	20
Renewed	9	16	21	26	27	29	28	35
Totals	1153	1213	1354	1555	1710	1763	1869*	1627
Percent increase (decrease) over previous year		5.2%	11.6%	14.8%	10.0%	3.1%	6.0%	(12.9%)

*1981–82 was a seventeen-month membership year.

Recommendation

New approaches to membership enhancement should be considered, implemented, and evaluated.

Line Item	Original Budget (Annual Meeting)	Revised Budget (E.C. Mtgs 9/82 & 3/83)	Estimated Actual (to come at Forum)	Proposed Budget for 1983–84
Telephone	$200		.....	$200
Postage	3,350		.....	3,600
Printing	7,450		.....	7,200
Total	$11,000	No Change	.....	$11,000

A9

ANNUAL REPORT OF THE PUBLICATIONS BOARD

Marilyn McCoy

Board charge: To give direction and supervision to the publications activities of the Association.

Board members: Marilyn McCoy (chair) (1984), Jean J. Endo (1985), William P. Fenstemacher (1984), Horace F. Griffitts (1983), Richard B. Heydinger (1985), and Paul Jedamus (1983). Ex-officio members are: Editors—Daniel R. Coleman (Forum Publications), Charles F. Elton (*Research in Higher Education*), Richard R. Perry (*Professional File*), Marvin W. Peterson (*New Directions for Institutional Research*); Associate editors—Cameron L. Fincher (*Research in Higher Education*), Gerald W. McLaughlin (*Professional File*), and Patrick T. Terenzini (*New Directions for Institutional Research*).

Original budget: $18,000.

Special note

To recognize the many contributions of Eugene C. Craven to the Association in general, but particularly to its publications activities—as editor of *Forum Proceedings*, as an issue editor of *New Directions*, and as a member of the Publications Board—the special 1983 Forum issue of *Research in Higher Education* will be dedicated to Gene. We miss him.

New activity

1. The Publications Board and the Executive Committee have approved the republication of the first sixteen issues of the *Professional File* as a single volume, as a cooperative activity with the John H. Russel Center for the Study of Higher Education at the University of Toledo. Dick Perry, editor of the *Professional File*, is guiding this project and will provide the editor's comment and organization for the volume. Through this publication, we hope to serve those members who wish to have a consolidated volume, to provide a useful publication concerned with practitioners' issues for new members, and to make the valuable contributions of the *Professional File* available to others in higher education outside the Association.

2. The Publications Board is developing a bibliographic guide to institutional research, an effort being spearheaded by Bill Fenstemacher. Members interested in this volume should contact him about content.

3. The Publications Board is initiating a new "best paper" award, to be given annually at the Forum from among the

prior year's contributed papers. The Suslow Award Committee is drawing up procedures for this award. Also, the Suslow Award procedures are being revised to allow for other publications by AIR members, besides contributed papers, to be considered for this special recognition. With this change, the Best Paper Award will be annual and tied specifically to Forum contributed papers. The Suslow Award will continue to be a special, and often infrequent, award for "original" contributions of "significance" by members, but will include a broader array of publications than the Forum papers.

4. The Publications Board is conducting a survey of a sample of AIR Forum registrants about their views/perceived needs for publications. There will also be an informal follow-up discussion of the results of that survey with respondents at the Forum.

Continuing publications

1. *AIR 1983–84*, edited by Dan Coleman with Jean Chulak's assistance. The yearbook (proceedings and directory) will be distributed this summer. With this issue, the timing of the yearbook will be modified to summer/fall rather than spring, to bring the proceedings, membership, and officers/committees into closer congruence. In this transition year, *AIR 1983–84* will contain only an update to the list of members in *AIR 1982–83* (distributed in April 1983). This means that for one year members will be working with two directories.

2. *New Directions for Institutional Research (NDIR)*. Marv Peterson, editor, along with Pat Terenzini, associate editor, is guiding this quarterly sourcebook for institutional research which is sponsored by AIR and published by Jossey-Bass Inc. This publication is produced at no cost to AIR. The 1983 issues, as well as the topics (and backup topics) selected for 1984, are detailed below:

   1983 issues
   - Pragmatics and Politics of Institutional Research (James W. Firnberg and William F. Lasher)
   - Using Research for Strategic Planning (Normal P. Uhl)
   - Applying Methods and Techniques of Futures Research (James Morrison)
   - Assessing the Impact of Faculty Allocation and Reallocation (Roger Baldwin and Robert Blackburn)

   1984 topic options
   - Microcomputing in Colleges and Universities
   - Impact of Changing State Budgeting Formula and Allocation Procedures
   - Decision Research
   - Quality of Performance
   - Tuition Pricing Strategies and Implications
   - Institutional Impacts of Changing Federal Role in Higher Education
   - Capital Replacement

3. *Professional File*. Dick Perry is the editor of the *Professional File*, now assisted by Gerry McLaughlin as associate editor. Dick has been responsible for the initial launching of the *Professional File* and the publication of sixteen issues to date. He is now editing the first sixteen issues into a single bound volume.

   Issues (and authors) published in 1983 and those planned for the future include:
   No. 14—A Methodological Approach to Selective Cutbacks (Charles H. Belanger and Lise Tremblay) (Winter 1983)
   No. 15—Triage and the Art of Institutional Research (Donald M. Norris) (Spring 1983)*
   No. 16—Effective Use of Models in the Decision Process: Theory Grounded in Three Case Studies (Martha Mayo and Ruth E. Kallio) (Spring 1983)*
   No. 17—The Growth of Part-Time Faculty: Economic and Quality Considerations (Jesse U. Overall IV)
   No. 18—Centralized Planning in Higher Education (Paul E. Lingenfelter)
   No. 19—Withdrawal from Social Security (Robert H. Linnell)
   No. 20—Management Fads in Higher Education (Richard H. Allen and Ellen E. Chaffee)

   Dick Perry is planning to resign as editor of the *Professional File* this year. His leadership and insight will be sorely missed. Gerry McLaughlin will be assuming the editorial responsibilities. He has big shoes to fill. We look forward to his contributions.

4. *Research in Higher Education (RIHE)*. Under the continued leadership of Chuck Elton and Cameron Fincher, *RIHE*, published by Agathon Press, serves the Association both as a vehicle for publication of research papers by members and as a source of information for readers. The special Forum issue, which contains outstanding Forum contributed papers, is sent to members annually without charge. This year, a five-year renewal of the agreement with Agathon Press was signed, extending our commitment to *RIHE*.

*Postscript. The numbers of these issues were subsequently reversed.

Line Item	Original Budget (Annual Meeting)	Revised Budget (E.C. Mtgs 9/82 & 3/83)	Estimated Actual (to come at Forum)	Proposed Budget for 1983–84
Editorial Support	$600	$600		$600
Telephone	925	925		925
Postage	465	465		455
Duplicating/Printing	11,160	13,280		11,170
Advertising/Promotion	680	680		650
Travel/Per Diem	4,120	2,000		3,000
Other Meeting Expenses	0	0		120
Copyrights	50	50		80
Total	$18,000	$18,000		$17,000

A10
ANNUAL REPORT OF THE PROFESSIONAL DEVELOPMENT SERVICES (PDS) BOARD
Laura E. Saunders

Board charge: To provide direction and supervision in meeting the professional development and continuing education needs of members of the Association.

Board members: Laura E. Saunders (chair) (1984), Mark D. Johnson (1983), Donald C. Lelong (1984), Cynthia A. Linhart (1983), and Elaine L. Tatham (1984).

Original budget: $3,000.

Activity

1982–83 saw a change in leadership in the PDS Board, as Don Reichard's term on the Executive Committee ended. The Board members, under the new chair, conducted their business by conference calls this year rather than in-person meeting. The terms of reference and operating agreements adopted by the Executive Committee the previous year guided their actions.

The Board divided into four areas, each under the leadership of a Board member: (1) Forum workshops: Cynthia Linhart, (2) pre-Forum professional development opportunities (PDOs), both at the Forum and at regional meetings: Elaine Tatham, (3) development of curriculum materials: Don Lelong, and (4) information dissemination and exchange program activity: Mark Johnson. The latter responsibilities led to discussions with the Publications Board on preparing potential publications specifically oriented to professional development.

Organization matters. The chair of the PDS Board is a member of the Executive Committee and took to that committee a revised and edited version of the terms of reference and operating agreements, incorporating two appendices which spell out the details of workshop payment and pre-Forum PDO guidelines that had previously been separate items in the AIR Policy Manual. Executive Committee action added the chairman of the pre-Forum PDOs to the Forum Planning Committee.

Forum workshops. Nine workshops were selected for presentation at the 1982 Forum, and all were held. Another nine (not identical with 1982) were developed for the 1983 Forum and include increased emphasis on data-processing and computer-based technologies. The term of the chair of the Workshops Committee expires this year, and a new chair will be recommended to the Executive Committee. Cynthia Linhart has done an excellent job in this area over the past two years and deserves everyone's thanks for the fine workshops.

Pre-Forum PDOs and regional workshops. No formal PDS-sponsored workshops were held this year in connection with regional meetings. Four pre-Forum PDOs are to be presented in connection with the Toronto Forum. Two are on general management techniques and, while they represent a departure from those presented in the past, they have been highly recommended to the PDS Board. These PDOs cover time management, impact of changing technology on postsecondary education, advanced microcomputers, and organizational productivity and the self-fulfilling prophecy. No formal newcomers' PDO is being offered this year, but a short workshop is included in the Forum workshop section. The Board decided that offering the longer Chase-Tetlow PDO for newcomers every other year might be sufficient.

Curricular materials. Two general management courses from the American Management Associations were purchased this year by the PDS Board. These are available from the Florida office of AIR on a rental basis by members of AIR and include cassettes and workbooks. While the material is oriented somewhat to the needs of private enterprise, the PDS Board wished to explore whether this self-paced material might be useful to middle-level managers in

institutional research and planning offices. Details about rental of the tapes are to be announced in the spring newsletter. Another project is the preparation of workbooks and cassettes based on some of the more successful of the AIR PDOs and workshops. Work on one such package on survey research has begun, and the Board is discussing a fact book project. The PDS Board will review all the workshops and PDOs from the Toronto Forum for their potential development as learning packages.

Information Exchange/Dissemination/Professional File activities. After reviewing the possibilities for information exchange and dissemination, the PDS Board decided that this was not a major area to pursue. What did seem of more potential interest to AIR members was a publication program that focused on professional development topics. Discussions with the Publications Board were held, and it may be possible to select some of the Forum presentations that are most relevant to professional development. These may then be developed into articles on professional development for the *Professional File*.

Objectives for 1983–84

The PDS Board will continue these present activities into 1983–84 and will strengthen ties with regional and affiliated groups. Specific objectives include:

1. Coordinate the development of 8–10 1984 Forum workshops.
2. Sponsor 2–4 1984 pre-Forum professional development opportunities (PDOs) on a self-supporting basis.
3. Survey regional and affiliated groups to determine needs for workshop material, and coordinate their presenation to the extent possible.
4. Prepare instructional material on the survey workshops and identify one other workshop for potential curriculum development.
5. Evaluate the usefulness and utility of the American Management Associations tapes, based on their use by AIR members.
6. Identify papers from the 1983 Forum that have professional development implications and examine them for potential publication in the *Professional File* (in conjunction with the Publications Board).

Line Item	Original Budget (Annual Meeting)	Revised Budget (E.C. Mtgs 9/82 & 3/83)	Estimated Actual (to come at Forum)	Proposed Budget for 1983–84
Honoraria	$-0-			$1,000
Telephone	500			750
Postage	100			60
Duplicating/Printing	100			1,010
Advertising/Promotion	500			200
Travel/Per Diem	1,800			-0-
Total	$3,000	No Change		$3,020

Note: During 1981–82, actual income and expense for professional development opportunities were as follows:

	Income	Expense
Regional Workshops	$5,070.00	$5,265.57
Pre-Forum PDOs	6,767.50	5,237.56
Forum Workshops	2,847.50	2,366.63
Total	$14,685.00	$12,869.76

A11
ANNUAL REPORT OF THE ASSOCIATED GROUPS COMMITTEE
Oscar T. Lenning

Committee charge: To serve as liaison between the Association and regional or special interest groups; to make recommendations to the Association regarding policies designed to provide services to these groups as well as requests for formal affiliation; specifically, to extend the foundation work provided by the previous chair, Suzanne Larsen, and the 1980–81 committee by evaluating the activities and support provided to subgroups of the Association.

Committee members: Oscar T. Lenning (chair), Edith H. Carter, Fletcher F. Carter, Virginia M. Feagler, John M. Finney, Barry R. Foord, Glen C. Forrester, W. Kevin Hunt, Gordon Jones, Peter P. Lau, Cynthia L. Luna, Heidi L. Mahoney, Jeffrey G. Reed, Robert M. Ussery, and Jeremy R. Wilson.

Original budget: $1,215

Goals

The goals of the Committee are:

1. To identify the criteria for support to affiliated groups that would be most advantageous to the groups as well as to the Association as a whole.
2. To encourage further organization of regional subgroups.

Activity

Five state and regional groups were selected to receive keynote speaker travel and on-site expense support this year—the Mississippi Association for Institutional Research, the North East Association for Institutional Research, the Northwest Association for Institutional Research and Planning, the Texas Association for Institutional Research, and the Association for Institutional Research of the Upper Midwest. One group, the Illinois Association for Institutional Research, was granted formal affiliation status. Again, as in the past, mailing labels were made available free of charge to associated groups.

A classification of AIR-associated groups was presented to and approved by the Executive Committee. As currently defined, an "associated group" is any group of individuals related to institutional research (IR) who share a common purpose, interest, problem, responsibility, or geographical area. Organization of the group and its relationship to AIR may be formal or informal. The major categories of associated groups follow. (In case there is ever a need for a more specific categorization, subcategories have been identified.)

1. *Geographic IR groups*—associated IR groups that are differentiated primarily on the basis of functional territorial boundaries, e.g., local, state, regional, national, international groups. These groups can be either formally affiliated with AIR or unaffiliated.
2. *Common-interest IR groups*—associated groups that are differentiated primarily on the basis of a well-defined interest, goal, problem, purpose, or mission rather than by geographic area. Examples are institutional-type groups such as community college institutional researchers; common-problem groups such as members concerned primarily with student attrition; human characteristic groups such as minority members or women members; methodology/technique groups such as those interested or involved especially in program evaluation or in multivariate analysis; and enterprise-related groups such as users of NCHEMS or products of particular governmental agencies. These groups can be either formally affiliated with AIR or unaffiliated.
3. *Geographic/interest IR groups*—associated IR groups that are differentiated on the basis of both a geographic area and a common interest other than geographic area, such as community college IR people in the Midwest.
4. *Related-profession groups*—groups of other than institutional researchers with which the Association may have a formal or informal relationship. Examples are groups that are primarily educational organizations, such as the American Association for Higher Education or the American Council on Education, and groups that are primarily research organizations, such as the American Educational Research Association or the Operations Research Association.

At a half-day meeting in Toronto, the Committee will be trying to reach some resolution about alternative support mechanisms for affiliated institutional research groups (including modifications to the current keynote speaker support program). The Committee purpose and goals will also be reexamined. At an invitational meeting the next day, liaison representatives from the AIR-affiliated groups will critique the Committee's conclusions and provide advisory input.

1982–83 budget and expenditures

All $1,000 of the keynote speaker support line item in the 1982–83 budget has been expended to the five affiliated groups mentioned earlier. Telephone and postage budget money was diverted to cover the meeting expenses in Toronto.

Plans/Recommendations

It is recommended the keynote speaker support program be modified and the eligibility criteria changed so that fledgling groups will be helped. In addition, new types of support services and relationships that are mutually beneficial need to be forged between AIR and various IR-associated groups.

Line item	Original Budget (Annual Meeting)	Revised Budget (E.C. Mtgs 9/82 & 3/83)	Estimated Actual (to come at Forum)	Proposed Budget for 1983–84
Telephone	$100			$100
Postage	115			115
Associated Group Support	1,000			1,000
Total	$1,215	No Change		$1,215

A12
ANNUAL REPORT OF THE HIGHER EDUCATION ARTICULATION COMMITTEE
Denise Strenglein

Committee charge: To foster cooperation among organizations which have some mutuality of interest with AIR. Each of the members of this committee is also a member of another association or organization that has some connection with institutional or educational research, planning, evaluation, management information, etc.

Committee members and their affiliations: Denise Strenglein (chair) (AIR), Charles R. Thomas (CAUSE), Jonathan D. Fife (ERIC), Daniel A. Updegrove (NACUBO), Larry A. Braskamp (Joint Committee for Educational Evaluation), Sally S. Naylor (Iowa Association for Research & Evaluation), Ruth A. Jass (AACRAO), Marvin W. Peterson (ASHE), Zita M. Cantwell (AERA Division J), and Donald M. Norris (SCUP).

Activity

For three years, AIR has investigated closer cooperation with other organizations. Information has been gathered by direct contacts among board members of AIR and other organizations, correspondence, and through an open hearing at the AIR Forum.

In the final analysis, there does not appear to be a great deal of interest in merging organization functions such as major meetings, publications, or central office staff. The logistics are, at present, too complicated to make any possible benefits worthwhile.

Cooperation is possible in the area of professional development. Organizations show some interest in providing program space for separately budgeted workshops with shared faculty. Similarly, special publication projects, such as monographs jointly sponsored and edited, are also possible, provided that funding can be found for them. Regional associations have had some outstanding successes holding joint meetings. AIR members can also organize special interest group meetings with formal institutional research programs at the annual meetings of other organizations, although such activities can best come from within those other organizations.

To summarize, the role of the Higher Education Articulation Committee is now more to locate and direct individual cooperative efforts than to meet as a group and recommend or in some way carry out policy.

The second function of the Higher Education Articulation Committee has been to provide policy analysis. However, there seems to be a consensus that, as an international organization, it is not appropriate to take a stand on purely national issues. Yet, the major policy issues facing higher education which affect institutional researchers tend to be political, and hence national, in scope.

It appears that the work of this committee is at an end. It has pointed the direction which organizational cooperation can take. This proves to be along lines which can best be handled by individual AIR officers or by other standing committees such as associated groups, publications, or professional development. The policy analysis function can best be handled by the president on an ad hoc basis as serious issues arise.

I wish to thank all of those people, both within and outside the committee, whose efforts have helped to successfully complete the work of analyzing interorganizational cooperation. Special thanks this year go to Richard Mann, who attended CAUSE and reported on subjects of interest to institutional researchers.

Line Item	Original Budget (Annual Meeting)	Revised Budget (E.C. Mtgs 9/82 & 3/83)	Estimated Actual (to come at Forum)	Proposed Budget for 1983–84
Telephone	$110	$110		No Budget Requested
Travel	-0-	326		
Total	$110	$436		

A13
COMMITTEE FOR INTERNATIONAL LIAISON
William L. Tetlow

Committee charge: To develop and maintain liaison with individuals in countries other than the United States of America who are interested in promoting the functions of institutional research in their geographic regions.

Committee members: William L. Tetlow (chair), John Iva Anderson, Charles H. Belanger, John Calvert, Michel G. Hecquet, Humberto Lopez-Delgadillo, Martha Mayo (Hinman), Thaly Nilsson, Zuhair Warwar, and Robert Winter.

Activity
The basic objective of this committee's activities is to encourage the exchange of information and interaction of professionals in institutional research on a wordwide basis. The Association, as an international organization, is committed to assisting and advancing the functions of institutional research for the benefit of postsecondary education in any country. The activities of the Committee towards these ends were as follows:

1. The Fourth Annual European AIR Forum was held in Uppsala, Sweden, during the period 25–27 August 1982 under the expert guidance of Thaly Nilsson. Some limited assistance was provided by committee members and by the AIR Executive Office. A total of approximately eighty individuals—from nearly all western European countries, Canada, Japan, and the United States of America—attended the conference.

   John Stecklein, Distinguished Member and first president of AIR, officially represented AIR on behalf of the Committee, since the chairman was prevented from attending by professional obligations.

2. Plans were made for the Fifth European AIR Forum, to be held at the University of Limburg in the Netherlands on 17–19 August 1983, under the leadership of Peter de Rooij and Jan J. Schrijen. Advertising and editorial support services were provided by the AIR Executive Office.

3. Efforts continue towards scheduling a Forum aimed at the institutional research needs of Latin American countries.

4. Correspondence was maintained with individuals from many countries who are engaged in promoting institutional research in their country or geographic region. In addition, the chairman met with many international visitors who were traveling in North America and who desired more information about the conduct of institutional research.

Future plans
Various alternatives for the location and scheduling of an "international congress" on institutional research are being explored.

Line Item	Original Budget (Annual Meeting)	Revised Budget (E.C. Mtgs 9/82 & 3/83)	Estimated Actual (to come at Forum)	Proposed Budget for 1983–84
Telephone	$50	$50		$50
Postage	50	50		50
Duplicating/Printing	-0-	50		-0-
Travel/Per Diem	500	500		500
Total	$600	$650		$600

A14
ANNUAL REPORT OF THE SITE SELECTION/FUTURE FORUM ARRANGEMENTS COMMITTEE
W. Sam Adams

(Note: The two committees were combined during the year.)

Committee charge: To develop a comprehensive and thorough revision of existing policies, procedures, and practices, to determine the feasibility of employing an external professional management firm to negotiate future (1986–1989) Forum host hotel contracts which would result in savings to AIR members. (Current methods of contracting have raised concerns about our ability to negotiate the most competitive prices.)

Committee members: W. Sam Adams (chair), John S. Chase, Robert W. Starkey, Janis H. Weiss, Risdon J. Westen, Michael E. Young, Gerald H. Gaither, Robert I. Lewis, John A. Muffo, Deborah J. Teeter, Daniel R. Coleman, and Martha Mayo (Hinman).

Original budget: $250

Activity
1. Revised site selection guidelines were approved.
2. Forum host hotel requirements were accepted as operating criteria.
3. Future Forum operating guidelines were accepted as planning tasks.
4. Contact was made with several educational professional associations to determine how they have negotiated host hotel contracts for their national meetings.
5. The American Society of Association Executives was contacted; they suggested fifteen firms to contact for proposals.

6. Ten firms responded with proposals.
7. The Site Selection/Future Forum Arrangements Committee evaluated the proposals.
8. Proposals ranged in fees from $3,100 to $10,000 a year.
9. Since Orlando had already been selected for the 1986 Forum, none of the responsible professional firms chose to bid on 1986. The Executive Committee subsequently approved a recommendation that Daniel R. Coleman, 1986 local arrangements chair, finalize an agreement with the Sheraton Twin Towers at $48 a night single, $56 a night double.
10. The Executive Committee approved the recommendation that proposals be solicited from AIR members and professionals who would be interested in negotiating future Forum hotel contracts. The years to be considered are 1987 and beyond.

1982–83 budget and expenditures
Because of the special efforts to solicit proposals, the budget was increased twice during the year.

Plans for 1983–84
1. The Site Selection/Future Forums Committee will make the initial review of nominees for negotiator and recommend the top six candidates, based on experience with hotel contracting (criteria to be specified by the Committee).
2. The Executive Committee will select a negotiator for a two- to three-year contract.
3. The date for hiring a hotel negotiator will be fall 1983 (at the Executive Committee meeting).
4. The Site Selection/Future Forum Arrangements Committee will become a standing committee of AIR. Terms of office and composition of the Committee will be developed by the fall of 1983.

Proposed 1983–84 budget
It is unknown, at this point, what it will cost to hire a hotel contract negotiator. Therefore, no 1983–84 budget will be proposed until a realistic estimate is received.

Line Item	Original Budget (Annual Meeting)	Revised Budget (E.C. Mtgs 9/82 & 3/83)	Estimated Actual (to come at Forum)	Proposed Budget for 1983–84
Telephone	$125	$275	.....	$125
Postage	75	175	.....	75
Duplicating	-0-	50	.....	50
Travel	50	50	.....	-0-
Total	$250	$550	.....	$250

A15
ANNUAL REPORT OF THE FORUM COMMITTEE
Mantha V. Mehallis

Committee charge: To plan and supervise the Association's Annual Forum; to present the best Forum program possible.

Committee members: Mantha V. Mehallis (chair), Donald M. Norris (associate chair), Edward K. DesRosiers (local arrangements), John A. Muffo (contributed papers), Eric A. Hillman (panels), F. Craig Johnson (seminars), Patrick T. Terenzini (symposia), Edith H. Carter (special interest groups), Cynthia A. Linhart (workshops), Daniel W. Lang (evaluation), and Daniel R. Coleman (Forum publications).

Activity
The 1983 Forum Committee did an outstanding job in preparing for the 23rd Annual Forum at the Sheraton Centre, Toronto, Ontario, May 23–26. The theme of the Forum was "Integrating Human Resources and Technology." Donald Norris served as associate Forum chair and chaired eleven informal table topics. Edward K. DesRosiers chaired the Local Arrangements Committee which did a superb job of preparing for all the on-site details and logistics connected with the Forum. Local Arrangements worked directly with the Sheraton Centre hotel personnel in preparing for special events, room set-ups, coffee breaks, meal functions, spouses' program, and contracting for audiovisual aids. Although only two members of the Local Arrangements Committee actually live in Toronto, the group met regularly and worked well as a team. Special arrangements were made with Congress Canada to hold an exhibit show in connection with the Forum. This was the first formal attempt by AIR to present an exhibit show to its membership. The major events for the Forum, which were arranged by the Local Arrangements, included: spouses' program to the art gallery of Ontario, browsing and lunch at Village on the Grange, and a visit to Black Creek Pioneer Village and lunch at the Old Mill Restaurant; tour of the CN Tower; tour of Ontario Place; and the Forum Banquet which was the Mayfest at the Ontario Science Centre. Besides overseeing the coffee and rolls for the morning sessions, Local Arrangements Committee also made arrangements for the Forum wind-up party.

Jean Chulak, executive secretary of AIR, and the Forum chair met with the Local Arrangements Committee in Toronto in August, 1982, to establish the plans for the ensuing year. Ris Westen, local arrangements chairman of 1982, functioned as a consultant to the Local Arrangements Committee. In November 1982, the Forum chair met with the executive secretary, associate Forum chair, and contributed papers chair in Ft. Lauderdale, Florida, to prepare the final program and assign rooms for the various sessions. Arrangements were also initiated to select Air Canada as the official airline, with the Aloha Travel Agency providing discount rates to AIR members for travel to the Forum.

The Contributed Papers Committee was chaired by John Muffo. Every paper was "blindly" reviewed by four committee members, with Muffo intervening as a fifth evaluator when necessary. The resulting program included materials from both the areas of human resources and technology.

Eric Hillman chaired the Panels Committee, and Craig Johnson coordinated seminars. Panels were also reviewed by a committee, and seminars were established to cover areas in which the membership had shown concern. For the first time, a Symposia Committee was established and chaired by Patrick Terenzini. The purpose was to bring specific, in-depth coverage of particular topic areas by experts in the field to the AIR membership.

The Workshop Committee, chaired by Cynthia Linhart, oversaw workshops scheduled on the first and last afternoons of the Forum. Elaine Tatham, a member of the Professional Development Services Board, was responsible for the pre-Forum professional development opportunities (PDOs).

Edith Carter chaired the Special Interest Groups Committee which scheduled the groups which met in early morning or late afternoon time periods. In addition, a SIG Fair was held during the opening day of the Forum to give the special interest groups an opportunity to attract new interested members.

Daniel Lang chaired the Evaluation Committee which worked long, hard hours in the final days of the Forum to prepare an evaluation which could be utilized by the 1984 planning committee. The Forum Publications Editorial Advisory Committee was chaired by Dan Coleman.

The keynote speaker for the Forum was Dean Berkley, from the School of Education at Indiana University. His topic, "It Ain't All Bad," set the stage for the theme concerning the human dimension in our technical pursuits.

Ian Macdonald, president of York University and chairman of the IDEA Corporation, presented the Forum address on "Technological Innovation and Strategies for Investing in Human Capital." The second Forum Address was made by Alexander Schure, chancellor of New York Institute of Technology and Nova University. His address focused on "Futures: The Effect of New Microelectronics." The beginning sessions, such as the President's Address, were given "pomp and circumstance" by fifes, drums, and bagpipes.

The Forum wind-up party included dancing to the tunes of a banjo band and allowed a moment of relaxation before the 1984 planning committee began its plans for the next year.

Recommendations

1. Increase the monies for major speakers at the Forum so that high quality persons can be attracted.
2. Reevaluate the need for a consultant to the Local Arrangements Committee annually.
3. Develop an exhibitor show for the Forum starting in June of the prior year.
4. Continue to develop discounted air travel arrangements to the Forum for AIR members.
5. Continue to ensure that Forum committees have representation from all types of institutions (universities, community colleges, private colleges), ethnic origin, male/female, and regional.

Line Item	Original Budget (Annual Meeting)	Revised Budget (E.C. Mtgs 9/82 & 3/83)	Estimated Actual (to come at Forum)	Proposed Budget for 1983-84
Honoraria	$2,750	$2,750		$5,000
Telephone	1,775	1,775		2,650
Postage/Shipping	3,420	3,420		3,600
Printing/Typesetting	9,455	9,455		9,900
Stationery/Supplies	1,500	1,500		1,575
Computing Services	500	500		-0-
Advertising/Promotion	2,000	2,000		2,500
Travel/Per Diem	6,450	6,950		6,100
Other Meeting Expenses	4,350	4,350		5,000
Rental (furn/equip)	800	800		840
Total	$33,000	$33,500		$37,165

A16

ANNUAL REPORT OF THE 1983 ASSOCIATE FORUM CHAIR/1984 FORUM CHAIR

Donald M. Norris

Charge: To assist the 1983 Forum chair by carrying out duties, as assigned; to begin planning and organizational activities for the 1984 Forum.

Original budget: Included in the Forum budget.

Activity

The associate Forum chair was active in the following ways during the year:

1. Assisted Mantha Mehallis, Forum chair, in planning activities for the Toronto Forum, as she saw fit; was included in most decisions as preparation for next year's responsibilities; participated in program decisions, slotting of papers, and general planning at a fall meeting in Fort Lauderdale.
2. Met with Fort Worth local arrangements people in February to discuss activities and plans.
3. Constituted the 1984 Forum Planning Committee in February to initiate planning. Membership includes: Donald M. Norris (chair), John A. Muffo (associate chair), E. Michael Staman (general sessions/symposia), Jana B. Matthews (seminars), Deborah J. Teeter (panels), Elizabeth F. Fox (contributed papers), Cynthia A. Linhart—to be succeeded by a new appointee to the PDS Board (workshops), Horace F. Griffitts (local arrangements), Nellie T. Hardy (special interest groups), Marsha Ivery (evaluation), and Daniel R. Coleman (Forum publications).
4. Decided not to utilize a local arrangements consultant for the Fort Worth Forum.
5. Discussed thematic direction with the 1984 Forum Planning Committee and the Executive Committee; decided to link symposia and general sessions around the thematic threads of advances in information systems, decision support, and a new role for institutional research as vehicles for rejuvenating higher education—all gathered under the title, "The Revolution in Administrative Roles in Higher Education."
6. Proposed new options for improving on exhibits capabilities.
7. In conjunction with Jean Chulak and Horace Griffitts, prepared a critical time schedule of activities and a full outline of responsibilities.

The Fort Worth Forum will build on the solid tradition of previous successful programs. Most of the program will be a *potpourri* of papers relating to the full range of analysis of planning activities. However, general session/symposia/seminar speakers will be slected to address the major threads of the theme. The budget proposal includes an increase in honoraria to ensure that uniformly high quality speakers are selected. General inflationary increases are also reflected in the budget proposal.

A17

BUDGET PROPOSAL FOR FY 1983–84

Hans H. Jenny, Treasurer

When the Finance and Executive Committees met in Fort Worth in late March, a major agenda item was to review the status of current budgets and prepare a preliminary budget proposal for 1983–84.

Regarding 1982–83

1982–83 revenue projections were adjusted to reflect (1) a leveling off of membership revenues following the unusual seventeen-month membership year, (2) greater interest/dividend income because of generally high interest rates and a more favorable cash-flow pattern than had been anticipated, and (3) slightly greater revenue from miscellaneous sources. The revised estimate would return a modest amount to reserves.

Because the Association was still within its heaviest expenditure period, no attempt was made at that meeting to actually revise expense budgets. The Committee will review both revenue and expense at its pre-Forum meeting and will attempt to present to the membership realistic estimates of 1982–83 actuals.

Regarding 1983–84

Detailed budget requests and rationale statements were submitted by officers and chairpersons to the treasurer in advance of the Fort Worth meeting. A first budget draft, prepared by the treasurer, was considered by the Finance Committee, and suggestions for modification were formulated.

The Executive Committee considered this first draft, adjusting and revising the request to produce the preliminary budget proposal which follows. This proposal will be reviewed (and perhaps revised) once again at the pre-Forum meeting of the Executive Committee, and the final proposal will be presented to the membership both at the Budget Briefing on Monday afternoon and at the Annual Business Meeting on Wednesday morning.

The proposal includes a capital item of $5,000 to purchase microcomputer hardware for the Executive Office. It is proposed to pay approximately 25% of this amount from current revenues and to take 75% from reserves.

The proposed operating budget (excluding capital items) represents a 6.1% increase over the budget for 1982–83.

PROPOSED BUDGET
for Fiscal Year 1983-1984

Table 1
REVENUE

Item/Category		Total		Membership Dues/Fees	Forum Registration Fees	Publication Sales	Dividends/ Interest	Miscellaneous Sources	Reserves		
1983-84 Proposed Budget		$167,720		$57,750	$97,675	$1,000	$6,400	$1,080	$3,095		
1982-83 Budget		$152,375		$61,250	$89,375	$1,000	$3,000	$ 500	($2,750)		
1982-83 Estimated Actuals		$152,375		$53,450	$89,375	$1,000	$6,080	$ 750	($ 200)		
1984-85 Projected Budget	(at Forum)										

Table 2
EXPENSE

Key: EC - Executive Office
OC - Officers Expenditures

	Line Item/Function		Total	General Administration	Membership/ Marketing	Membership	Publications	Forum	Professional Development	Other Committees	Contingency		Capital Equipment
A	Salaries/Wages (EC)		$ 44,228	$44,228									
	Fringe Benefits (EC)		7,042	7,042									
	Other Personnel Services (EC)		3,000	3,000									
	Honoraria/OPS/Gifts (OC)		6,600				$ 600	$ 5,000	$1,000				
	Subtotal A		$ 60,870	$54,270	-0-	-0-	$ 600	$ 5,000	$1,000	-0-	-0-		-0-
B	Professional Services		$ 2,500	$2,500									
	Telephone		7,800	2,650	$ 550	$ 200	$ 925	$ 2,650	$ 750	$ 275			
	Postage/Shipping		9,530	875	700	3,600	455	3,800	60	240			
	Printing/Typesetting		30,790	575	935	7,200	11,170	9,900	1,010				
	Stationery Supplies		5,575	4,000				1,575					
	Computing Services		1,800	1,800									
	Advertising/Promotion		3,350	-0-			650	2,500	200				
	Publications/References		125	125									
	Travel/Per Diem		24,900	14,250			3,000	6,100		1,550			
	Other AIR Meeting Expense		5,335	200	15		120	5,000					
	Meeting fees (other organ.)		500	500									
	Maintenance/Rental furn. & equip.		1,240	400				840					
	Depreciation-furn. & equip.		880	800									
	Insurance/Licenses/Copyrights		1,080	1,000			80						
	Service Charges/Penalties		25	25									
	Bad Debts		1,000	1,000									
	Subtotal B		$ 96,350	$30,500	$2,200	$11,000	$16,400	$32,165	$2,070	$2,065	-0-		-0-
	Subtotal A & B		$157,220	$84,770	$2,200	$11,000	$17,000	$37,165	$3,070	$2,065	-0-		-0-
C	Contingency		$4,500	$1,000						$ 750	$2,750		
	Capital Equipment		$6,000										$6,000
	1983-84 Proposed Budget	(total A,B,C)	$167,720	$85,770	$2,200	$11,000	$17,000	$37,165	$3,070	$2,815	$2,750		$6,000
	1982-83 Budget		$152,375	$79,375	$1,800	$11,000	$18,000	$33,000	$3,000	$2,200	$2,000		$2,000
	1982-83 Estimated Actuals	(at Forum)											
	1984-85 Projected Budget	(at Forum)											

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ANNUAL REPORT OF THE TELLERS COMMITTEE

James H. Haynes

Committee charge: To count ballots and certify the results of all elections and referenda held during the year.

Committee members: James H. Haynes (chair), KarenAnn Kievit, and Howard W. Stoker.

Activity

The Committee counted ballots and certified the results of the spring 1983 election on the evening of April 4, 1983.

THE ASSOCIATION FOR INSTITUTIONAL RESEARCH

April 4, 1983 CERTIFICATION OF ELECTION RESULTS, 1983

We, the undersigned, certify that the following is an accurate record of the votes cast in the election of officers held in late winter, 1983.

for Vice President (1)

227 Larry G. Jones
371 Marvin W. Peterson
3 Other

Elected: Marvin W. Peterson

for Treasurer (1)

434 John S. Chase
171 John A. Dunn, Jr.
0 Other

Elected: John S. Chase

for Associate Forum Chair (1)

300 John A. Muffo
294 E. Michael Staman
0 Other

Elected: John A. Muffo

for Member-at-Large (2)

281 Richard B. Heydinger
283 Martha Mayo (Hinman)
228 W. Kevin Hunt
314 Norman P. Uhl

Elected: (1) Norman P. Uhl
(2) Martha Mayo

for Nominating Committee Member (5)

345 A. Nancy Avakian
259 Stefan D. Bloomfield
383 Jeanne E. Budig
164 Gerald H. Gaither
221 Richard D. Howard
315 Robert I. Lewis
247 Gerald H. Lunney
242 Mark Meredith
285 Joseph G. Rossmeier
248 Daniel A. Updegrove
11 Other

Elected: (1) Jeanne E. Budig
(2) Nancy Avakian
(3) Robert I. Lewis
(4) Mark Meredith
(5) Joseph G. Rossmeier

Total ballots mailed: 1559

Total ballots counted: 625**

James H. Haynes
Teller and Chairperson

KarenAnn Kievit
Teller

Howard W. Stoker
Teller

**In accordance with Article VIII, Section 5 of the AIR Constitution, ballots postmarked after March 17, 1983, were not counted.

APPENDIX B

EXHIBIT ONE. AGGREGATE REVENUES AND EXPENDITURES; CHANGE IN FUND BALANCE.

in $ '000

		1981/2 Actual	1982/3 Budget	1982/3 Estimate	1983/4 Budget	1984/5 Projt.
A.	REVENUES:					
	Operating Budget	$ 135.4	$ 155.2	$ 152.4	$ 164.1	$ 174.4
	Other Revenues	34.4	36.0	35.2	38.0	39.0
	Total	+ 169.8	+ 191.2	+ 187.6	+ 202.7	+ 213.4
B.	EXPENDITURES:					
	Operating Budget	$ 121.0	$ 150.4	$ 139.7	$ 160.2	$ 175.6
	Capital Items	-0-	2.0	6.5	1.0	1.5
	Other Expenditures	30.0	32.8	31.0	35.0	36.0
	Total	- 151.0	- 185.2	- 177.2	- 196.2	- 213.1
C.	Restricted Expend.	- 3.3	- 3.2	- 4.8	- 6.5	- 5.0
D.	A - (B+C)	+ 15.5	+ 2.8	+ 5.6	-0-	- 4.7
E.	Fund Balance:					
	Beginning	58.1	73.6	73.6	79.2	79.2
	Ending	73.6	76.4	79.2	79.2	74.5
F.	Membership Fee	$ 25.0	$ 35.0	$ 35.0	$ 35.0	$ 40.0
	Average Forum Rev.	129.0	127.0	127.0	135.0	135.0

Action recommended : (a) Adopt 1983/4 Budget as summarized above.
(b) Approve an increase in membership fee of $ 5.00 for 1984/85.

EXHIBIT TWO : REVENUES BY SOURCE.

in $ '000

	1981/2	Σ*	1982/3 Budget	1982/3 Estimate	Σ*	1983/4 Budget	Σ*	1984/5 Projt.	Σ*
Membership Fees	$ 34.9	20	$ 61.3	$ 53.5	29	$ 57.8	29	$ 66.0	31
Forum Fees	90.3	53	89.4	89.4	48	97.9	48	97.9	46
Publications	1.8		1.0	1.0		1.0		1.0	
Investment Income	7.8	24	3.0	8.0	24	6.4	23	8.5	23
Other Revenues	34.5		36.0	35.2		38.0		39.0	
Miscell. Activites	.6		.5	.5		1.0		1.0	
Total	169.8*		191.2	187.6*		202.1*		213.4*	
from (+), to (-) Reav.	-0-		- 2.8	- 5.6		-0-		+ 4.7	
Total, net	$ 169.8		$ 188.4	$ 182.0		$ 202.1		$ 218.1	

Percentages may not add to 100 because of rounding.

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EXHIBIT THREE : EXPENDITURES BY FUNCTION.

in $ '000

	1981/2 Actual	%	1982/3 Budget	1982/3 Estimate	%	1983/4 Budget	%	1984/5 Projt.	%
General Administration	$ 67.9	45	$ 79.4	$ 74.0	42	$ 84.2	43	$ 93.3	44
Nominating/Balloting	2.4	2	1.8	2.0	1	2.2	2	2.5	1
Membership	10.8	7	11.0	9.5	5	11.0	6	12.0	6
Publications	11.1	7	18.0	16.0	9	17.0	9	18.5	9
Forum	24.3	16	33.0	33.5	19	37.2	19	40.0	19
Other Committees	4.5	3	7.2	4.7	3	8.6	4	6.3	3
Capital Items	-0-		2.0	6.5	4	1.0	1	1.5	1
Other Expenditures	30.0	20	32.8	31.0	18	35.0	18	39.0	18
Total	$ 151.0		$ 185.2	$ 177.2		$ 196.2		$ 213.1	

EXHIBIT FOUR : EXPENDITURES BY TYPE.

		%			%		%		%
Personnel	$ 46.2	31	$ 53.7	$ 51.0	29	$ 60.9	31	$ 65.8	31
Non-Personnel	74.8	50	96.7	88.7	50	99.2	51	106.8	50
Capital Items	-0-		2.0	6.5	4	1.0	1	1.5	1
Other Expenditures	30.0	20	32.8	31.0	18	35.0	18	39.0	18
Total	$ 151.0		$ 185.2 + 21%	$ 177.2 +17%		$ 196.2 + 11%		$ 213.1 + 9%	

Percentages may not add to 100 because of rounding.

EXHIBIT FIVE : PROPOSED 1983-84 BUDGET.

Table 1. Revenues.

	Total	Operations	Mem. Fees	Forum	Publicat.	Investmts.	Misc.	Other	Reserves
1982-83 Estimates (5.22.83)	$187,575	$152,375	$53,450	$89,375	$1,000	$8,000	$ 500	$35,200	($5,600)
1983-84 Propos. Budget*	202,100	164,100	57,800	97,900	1,000	6,400	1,000	38,000	-0-
1984-85 Projection*	213,400	174,400	66,000	97,900	1,000	8,500	1,000	39,000	4,700

* rounded to nearest $ 100.

Table 2. Expenditures. ($ signs omitted)

	Categories	Total	Gen. Ad.	Nominat.	Membersh.	Public.	Forum	Prof. Dev.	Other Com.	Cont.	Capital
A.	Sal/Wages	44,228	44,228								
	Benefits	7,042	7,042								
	Other Person.	3,000	3,000								
	Honoraria	6,600				600	5,000	1,000			
	Subtotal A	60,870	54,270			600	5,000	1,000			
B.	Pro. Svcs.	2,500	2,500								
	Telephone	8,000	2,650	550	200	925	2,650	750	275		
	Postage, etc.	9,530	875	700	3,600	455	3,600	60	240		
	Printing, "	30,790	575	935	7,200	11,170	9,900	1,010			
	Stationary	4,075	2,500				1,575				
	Computing	1,800	1,800								
	Advert.	3,350				650	2,500	200			
	Public.	125	125								
	Travel pD.	24,900	14,250			3,000	6,100		1,550		
	Other AIR	5,335	200	15		120	5,000				
	Meeting Fees	500	500								
	Maint. Rent.	1,240	400				840				
	Deprec.	600	600								
	Insur.etc.	1,080	1,000			80					
	Serv. Ch.	25	25								
	Bad Debts	1,000	1,000								
	Subtotal B	94,850	29,000	2,200	11,000	16,400	32,165	2,020	2,065		
	Subtotal A+B	155,720	83,270	2,200	11,000	17,000	37,165	3,020	2,065		
	Capital	1,000									1,000
	Contingency	4,480	3,730						750		
	Total	161,200	87,000	2,200	11,000	17,000	37,165	3,020	2,815		1,000

AIR Committees and Affiliated Regional/Special Interest Groups

AIR COMMITTEES

EXECUTIVE COMMITTEE

This committee is a constitutional entity charged with carrying out the Association's business and acting on behalf of the Association except as otherwise specified in the constitution, any amendment, and the bylaws.

W. SAM ADAMS *(president) (1985)*
Assistant Graduate Dean
University of Wisconsin-Oshkosh
Graduate School
Oshkosh, WI 54901

Telephone: (414) 424-1223

MARVIN W. PETERSON *(vice president) (1986)*
Director and Professor
Center for the Study of Higher Education
University of Michigan
2007 SEB
Ann Arbor, MI 48109

Telephone: (313) 764-9472

WILLIAM F. LASHER *(past president) (1984)*
Associate Vice President for Budget & Institutional Studies
University of Texas-Austin
106 Main Building
Austin, TX 78712

Telephone: (512) 471-3727

JOHN S. CHASE *(treasurer) (1986)*
Director of Institutional Analysis
University of British Columbia
Vancouver, B.C., Canada V6T 1W5

Telephone: (604) 228-5611

JACK E. ROSSMANN *(secretary) (1984)*
Vice President for Academic Affairs
Macalester College
St. Paul, MN 55105

Telephone: (612) 696-6160

DONALD M. NORRIS *(Forum chair) (1984)*
Director of Policy Analysis
University of Houston-University Park
4800 Calhoun, 203 E. Cullen
Houston, TX 77004

Telephone: (713) 749-7521

JOHN A. MUFFO *(associate Forum chair) (1985)*
Director of Special Studies
Indiana Commission for Higher Education
143 West Market Street
Indianapolis, IN 46204

Telephone: (317) 232-1900

MARTHA MAYO *(member-at-large) (1985)*
Executive, Research & Measurement
Sandy Corporation
1500 West Big Beaver Road
Troy, MI 48084

Telephone: (313) 649-0800

MARILYN McCOY *(member-at-large) (1984)*
Director of Planning & Policy Development
University of Colorado System
914 Broadway, Campus Box B-4
Boulder, CO 80309

Telephone: (303) 492-6294

LAURA E. SAUNDERS *(member-at-large) (1984)*
Director of Planning & Capital Budget
University of Washington
193 Administration AF-35
Seattle, WA 98195

Telephone: (206) 543-6277

NORMAN P. UHL *(member-at-large) (1985)*
Professor of Educational Psychology
Mount Saint Vincent University
Halifax, N.S., Canada B3M 2J6

Telephone: (902) 443-4450

COMMISSION TO REASSESS THE PURPOSES AND OBJECTIVES OF THE ASSOCIATION

This commission was established to provide the Executive Committee with advice, counsel, and recommendations on questions affecting the future of the Association.

DONALD J. REICHARD *(chair)*
Director of Institutional Research
University of North Carolina-Greensboro
304 Mossman Administration Building
Greensboro, NC 27412

Telephone: (919) 379-5930

FRANK S. BLACK
Murray State University

JOHN S. CHASE
University of British Columbia

JAMES W. FIRNBERG
Louisiana State University System

ROBERT F. GROSE
Amherst College

STEPHEN R. HAMPLE
Montana State University

RICHARD B. HEYDINGER
University of Minnesota

PAUL JEDAMUS
University of Colorado-Boulder

LOIS E. TORRENCE
University of Connecticut

ROBERT A. WALLHAUS
Illinois Board of Higher Education

JANIS H. WEISS
North Hennepin Community College

ROBERT WINTER
Florida International University

FACT BOOK COMMITTEE

This committee has been charged with compiling management information to be included in a document for use by the Executive Committee and other committees for decision making, policy development, and long-range planning.

JAMES O. NICHOLS *(chair)*
Director of Institutional Research & Planning
University of Mississippi
205 Lyceum Building
University, MS 38677

Telephone: (601) 232-7387

STEVE W. BATSON
East Texas State University

ALTHEA J. BECK
University of Connecticut

HORACE F. GRIFFITTS
Tarrant County Junior College District

GERALD H. LUNNEY
Council of Independent Kentucky Colleges & Universities

GLYNTON SMITH
Georgia State University

FINANCE COMMITTEE

This committee assesses proposed programs and budget requests for their overall impact on the Association's financial well-being and makes recommendations to the Executive Committee.

JOHN S. CHASE *(chair/AIR treasurer)*
Director of Institutional Analysis
University of British Columbia
Vancouver, B.C., Canada V6T 1W5

Telephone: (604) 228-5611

W. SAM ADAMS *(AIR president)*
University of Wisconsin-Oshkosh

MARVIN W. PETERSON
University of Michigan

WILLIAM F. LASHER *(past president)*
University of Texas-Austin

DONALD M. NORRIS *(Forum chair)*
University of Houston-University Park

1984 FORUM COMMITTEE

This committee is charged with planning and supervising the Association's annual Forum.

DONALD M. NORRIS *(chair)*
Director of Policy Analyis
University of Houston-University Park
4800 Calhoun, 203 E. Cullen
Houston, TX 77004

Telephone: (713) 749-7521

JOHN A. MUFFO *(associate chair & table topics)*
Indiana Commission for Higher Education

MARY MARTIN BRYNGELSON *(Forum workshops)*
URS-Berger

DANIEL R. COLEMAN *(Forum publications)*
University of Central Florida

ELIZABETH F. FOX *(contributed papers)*
University of Alabama-Birmingham

HORACE F. GRIFFITTS *(local arrangements)*
Tarrant County Junior College District

NELLIE T. HARDY *(special interest groups)*
North Carolina State Department of Community Colleges

MARSHA K. IVERY *(evaluation)*
University of Texas-Austin

JANA B. MATTHEWS *(seminars)*
National Center for Higher Education Management Systems (NCHEMS)

E. MICHAEL STAMAN *(general sessions, symposia, & demonstrations/exhibits)*
Systems & Computer Technology Corporation

ELAINE L. TATHAM *(pre-Forum PDOs)*
ETC (Elaine Tatham, Consultant)

DEBORAH J. TEETER *(panels)*
University of Kansas

Forum Local Arrangements

This subcommittee is responsible for arrangements related to the Forum hotel, special events, and other matters requiring local coordination.

HORACE F. GRIFFITTS *(chair)*
Director of Research
Tarrant County Junior College District
1500 Houston Street
Fort Worth, TX 76102

Telephone: (817) 336-7851 Ext. 218

VICKI D. MASON *(associate chair)*
Tarrant County Junior College District

STANLEY I. ADELMAN
Amarillo College

ROBERT C. CULLINS
Tyler Junior College

SU-ZAN HARPER
University of Texas-San Antonio

JIMMIE R. NAUGHER
North Texas State University

ANN C. SEWELL
Texas Christian University

ROJEAN STARKE
Texas College & University System

(Additional committee members to be appointed.)

Forum General Sessions and Symposia

The coordinator of this function is responsible for assisting the Forum chair in selecting speakers and coordinating arrangements for general and symposia sessions.

E. MICHAEL STAMAN *(coordinator)*
Executive Director, Administrative Data Processing
Systems & Computer Technology Corporation
Western Michigan University
Administrative Computing Center
Kalamazoo, MI 49008

Telephone: (616) 383-1700

Forum Seminars

This subcommittee is responsible for recommending and arranging for seminar presentations at the Forum.

JANA B. MATTHEWS *(chair)*
Director, Management Services Division
National Center for Higher Education Management Systems (NCHEMS)
P.O. Drawer P
Boulder, CO 80302

Telephone: (303) 497-0345

MAXINE B. ALLEN
Norfolk State University

MARY K. KINNICK
Kinnick & Associates

G. RICHARD WYNN
Earlham College

MICHAEL E. YOUNG
Ohio State University

Forum Contributed Papers

This subcommittee is responsible for reviewing contributed paper proposals and recommending presentations to be scheduled at the Forum.

ELIZABETH F. FOX *(chair)*
Director of Institutional Research
Institutional Studies & Services
University of Alabama-Birmingham
University Station
Birmingham, AL 35294

Telephone: (205) 934-3254

JOHN BAKER, JR.
Alabama State University

DAVID A. BOOTH
Williams College

ANNE BOUCHER
University of Alabama-Huntsville

MELODIE E. CHRISTAL
National Center for Higher Education Management Systems (NCHEMS)

FRANK G. DIJKMAN
University of Utrecht

AARON DONSKY
Dutchess Community College

FRED O. DUKES
California State University-Northridge

ROBERT WAYNE ECHOLS
Alabama Commission on Higher Education

FRANK H. FRIEDMAN
Vincennes University

CHARLES C. GILBERT
Western Illinois University

DENNIS F. GLOVER
Morris Brown College

DENNIS D. HENGSTLER
University of North Carolina-Asheville

FRANCINE HUDGINS
Norfolk State University

CAROL A. KAYLA
West Virginia University

IRA W. LANGSTON
University of Illinois

JAMES L. LITWIN
Bowling Green State University

CYNTHIA L. LUNA
University of Texas-Health Science Center

GERALD H. LUNNEY
Council of Independent Kentucky Colleges and Universities

JOHN D. PORTER
Arizona State University

MARYANN STEELE RUDDOCK
Saint Edwards University

LAURA E. SAUNDERS
University of Washington

CAROL C. WALLACE
College of DuPage

R. DAN WALLERI
Mt. Hood Community College

MARY K. BARATTA WILDERS
Moraine Valley Community College

Forum Panels

This subcommittee is responsible for the review of panel proposals and the solicitation of panels to recommend for presentation at the Forum.

DEBORAH J. TEETER *(chair)*
Director of Institutional Research & Planning
University of Kansas
Box 2211
Lawrence, KS 66045

Telephone: (913) 864-4412

JUDITH I. GILL
Evergreen State College

HEATHER J. HABERAECKER
Northeastern Illinois University

JAMES P. OLOMON
University of Montana

GARY M. OYLER
University of Utah

ANNMARIE SHIRAZI
South Oklahoma City Junior College

JOHN A. (TONY) WILLIAMS
Xavier University of Louisiana

Forum Table Topics

The coordinator of this function is responsible for recommending and coordinating arrangements for table topic sessions (informal discussions) at the Forum.

JOHN A. MUFFO *(coordinator)*
Director of Special Studies
Indiana Commission for Higher Education
143 West Market Street
Indianapolis, IN 46204

Telephone: (317) 232-1900

Forum Demonstrations/Exhibits

This subcommittee is responsible for recommending and coordinating arrangements for demonstrations and/or exhibits at the Forum.

E. MICHAEL STAMAN *(chair)*
Executive Director, Administrative Data Processing
Systems & Computer Technology Corporation
Western Michigan University
Administrative Computing Center
Kalamazoo, MI 49008

Telephone: (616) 383-1700

ROBERT C. CULLINS
Tyler Junior College

HORACE F. GRIFFITTS
Tarrant County Junior College

DONALD M. NORRIS
University of Houston-University Park

Pre-Forum PDOs *(See Page 160.)*

Forum Workshops *(See Page 160.)*

Forum Special Interest Groups

This subcommittee is responsible for coordinating requests from regional and other special interest groups for time slots at the Forum and for providing coordination and logistical assistance on site.

NELLIE T. HARDY *(chair)*
Coordinator of Institutional Planning
North Carolina Department of Community Colleges
116 West Edenton Street
Raleigh, NC 27611

Telephone: (919) 733-3995

GEORGE BEATTY, JR.
G. B. Enterprises

EDITH H. CARTER
New River Community College

MELODIE E. CHRISTAL
National Center for Higher Education Management Systems (NCHEMS)

NATHANIEL L. FELDER
North Carolina Central University

TIMOTHY R. SANFORD
University of North Carolina-Chapel Hill

WALTER N. VAUGHN
University of Guelph

Forum Evaluation

This subcommittee is responsible for providing an assessment of the Forum in time for it to be of value to the Forum committee for the next year.

MARSHA K. IVERY
Director of Institutional Studies
University of Texas-Austin
202 Main Building
Austin, TX 78712

Telephone: (512) 471-3833

BILL CASH
Andrews University

JUDITH I. GILL
Evergreen State College

ANNIE R. HAYES
University of the District of Columbia

CYNTHIA L. LUNA
University of Texas-Health Science Center

MICHAEL J. VALIGA
American College Testing Program (ACT)

BERNARD YANCEY
University of Texas-Austin

Forum Publications *(See Page 161.)*

FORUM SITE SELECTION COMMITTEE

This committee is responsible for recommending to the Executive Committee future Forum sites, Forum hotels, and local arrangements chairpersons. It is also charged with reviewing the site selection process and making recommendations for improvement.

W. SAM ADAMS *(chair)*
Assistant Graduate Dean
University of Wisconsin-Oshkosh
Graduate School
Oshkosh, WI 54901

Telephone: (414) 424-1223

DANIEL R. COLEMAN
University of Central Florida

JOHN A. DUNN, JR.
Tufts University

GERALD H. GAITHER
California State University-Northridge

ROBERT I. LEWIS
University of Arkansas-Little Rock

ROBERT W. STARKEY
University of California-San Diego

DEBORAH J. TEETER
University of Kansas

JANIS H. WEISS
North Hennepin Community College

RISDON J. WESTEN
U.S. Air Force Academy (ret.)

MICHAEL E. YOUNG
Ohio State University

INTERNATIONAL DEVELOPMENT COMMITTEE

This committee is responsible for encouraging a network of international persons interested in institutional research and making recommendations designed to increase the Association's involvement, activity, and assistance to the field of institutional research outside of North America.

MARTHA MAYO *(chair)*
Executive, Research & Measurement
Sandy Corporation
1500 West Big Beaver Road
Troy, MI 48084

Telephone: (313) 649-0800

Austria
(To be announced)

Australia
JOHN IVA ANDERSON
Royal Melbourne Institute of Technology

Belgium and France
MICHEL G. HECQUET
Université Catholique de Lovain

Canada
CHARLES H. BELANGER
Université de Montréal

Central America
HUMBERTO LOPEZ-DELGADILLO
Universidad Autonoma de Guadalajara

Germany
(To be announced)

North America
ROBERT WINTER
Florida International University

The Netherlands
(To be announced)

Scandinavian Countries
THALY NILSSON
University of Uppsala

South America
ZUHAIR WARWAR
Universidade Estadual de Campinas

Switzerland
(To be announced)

United Kingdom
JOHN CALVERT
Loughborough University of Technology

MEMBERSHIP/ASSOCIATED GROUPS COMMITTEE

This committee, under the chairmanship of the secretary, is responsible for initiating and/or overseeing programs and procedures designed to retain and recruit membership, for ensuring that current members receive the basic membership services, and for screening and recommending nominees for the Distinguished Membership and Outstanding Service Awards. The Committee also functions as liaison between the Association and regional or special interest groups (the "associated groups"). It makes recommendations to the Association regarding policies designed to provide services to these groups.

JACK E. ROSSMANN *(chair)*
Vice President for Academic Affairs
Macalester College
St. Paul, MN 55105

Telephone: (612) 696-6160

STEPHANIE LAFOREST BROWN
Coppin State College

EDITH H. CARTER
New River Community College

CLAUDE COSSU
Université de Paris I

GLEN C. FORRESTER
British Columbia Research Council

CYNTHIA L. LUNA
University of Texas Health Science Center

GERALD H. LUNNEY
Council of Independent Kentucky Colleges & Universities

STEVEN F. SCHOMBERG
University of Minnesota

LOUIS M. SPIRO
State University of New York College-Brockport

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Northwestern University

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WILLAM F. LASHER *(chair/past president)*
Associate Vice President for Budget & Institutional Studies
University of Texas-Austin
106 Main Building
Austin, TX 78712

Telephone: (512) 471-3727

A. NANCY AVAKIAN
University of Missouri-St. Louis

JEANNE E. BUDIG
Center for Research Libraries, Chicago

ROBERT I. LEWIS
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MARK MEREDITH
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LAURA E. SAUNDERS *(chair)*
Director of Planning & Capital Budget
University of Washington
193 Administration AF-35
Seattle, WA 98195

Telephone: (206) 543-6277

MARY MARTIN BRYNGELSON *(1986)*
URS-Berger

DONALD C. LELONG *(1984)*
Institute of Higher Education Management

JEFF SEYBERT *(1986)*
Johnson County Community College

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ETC (Elaine Tatham, Consultant)

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This subcommittee is responsible for the review of workshop proposals and the solicitation of workshops for presentation in conjunction with the Forum.

MARY MARTIN BRYNGELSON *(chair)*
URS-Berger
1704 Thomes Avenue
Cheyenne, WY 82001

Telephone: (307) 634-3075

FRED A. CURRAN
University of Vermont

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Saint Mary's College

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JEFF SEYBERT (co-coordinator)
Research & Evaluation Specialist
Johnson County Community College
Overland Park, KS 66210

Telephone: (913) 888-8500 Ext. 442

ELAINE L. TATHAM (co-coordinator)
Planning Consultant
ETC (Elaine Tatham, Consultant)
701 North Walker
Olathe, KS 66061

Telephone: (913) 764-0814

PROFESSIONAL INSTITUTIONAL RESEARCH ADVISORY COMMITTEE

This ad hoc committee has been charged to study the feasibility of establishing an AIR board of consultants and/or other organizational entity to provide professional advice to institutions of higher education.

NORMAN P. UHL *(chair)*
Professor of Educational Psychology
Mount Saint Vincent University
Halifax, N.S., Canada B3M 2J6

Telephone: (902) 443-4450

STANLEY I. ADELMAN
Amarillo College

CHARLES H. BELANGER
Université de Montréal

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ROBERT H. FENSKE
Arizona State University

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University of Missouri

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MARILYN McCOY *(chair) (1984)*
Director of Planning & Policy Development
University of Colorado System
914 Broadway, Campus Box B-4
Boulder, CO 80309

Telephone: (303) 492-6294

JEAN J. ENDO *(1985)*
University of Colorado-Boulder

WILLIAM P. FENSTEMACHER *(1984)*
University of Massachusetts-Boston

STEPHEN R. HAMPLE *(1986)*
Montana State University

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University of Georgia

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DANIEL R. COLEMAN *(editor)*
Director of Institutional Research & Planning
University of Central Florida
P.O. Box 25000
Orlando, FL 32816

Telephone: (305) 275-2351

ELIZABETH F. FOX *(1985)*
University of Alabama-Birmingham

FRANK H. FRIEDMAN *(1985)*
Vincennes University

STEPHEN R. HAMPLE *(1984)*
Montana State University

DENNIS D. HENGSTLER *(1985)*
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ROBERT S. LAY *(1984)*
Boston College

JOHN A. MUFFO *(1984)*
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Northwestern University

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MARVIN W. PETERSON *(editor)*
Director and Professor
Center for the Study of Higher Education
University of Michigan
2007 SEB
Ann Arbor, MI 48109

Telephone: (313) 764-9472

PATRICK T. TERENZINI *(associate editor)*
State University of New York-Albany

FREDERICK E. BALDERSTON
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HOWARD BOWEN
Claremont Graduate School

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Arkansas College

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Ohio State University

MARTIN A. TROW
University of California-Berkeley

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GERALD W. McLAUGHLIN *(editor)*
Associate Director of Institutional Research
Virginia Polytechnic Institute & State University
128 Smyth Hall
Blacksburg, VA 24061

Telephone: (703) 961-7923

CHARLES I. BROWN
Fayetteville State University

CYNTHIA A. LINHART
University of Pittsburgh

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William Rainey Harper College

LINDA K. PRATT
North Carolina Central University

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Macalester College

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Systems & Computer Technology Corporation

ROBERT A. WALLHAUS
Illinois Board of Higher Education

Research in Higher Education Consulting Editors

The consulting editors, half of whom must be AIR members, assist the editor in maintaining the high standards of a professional research journal.

CHARLES F. ELTON *(editor)*
Professor of Higher Education
University of Kentucky
111 Dickey Hall
Lexington, KY 40506

Telephone: (606) 258-2627

CAMERON L. FINCHER *(associate editor)*
University of Georgia

JOHN P. BEAN
Indiana University

LARRY A. BRASKAMP
University of Illinois

ROBERT BROWN
University of Nebraska

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Berea College

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Educational Testing Service

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University of Minnesota

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University of Kentucky

EDMOND MARKS
Pennsylvania State University

MARILYN McCOY
University of Colorado System

GERALD W. McLAUGHLIN
Virginia Polytechnic Institute
& State University

JOHN A. MUFFO
Indiana Commission for Higher Education

HARRY G. MURRAY
University of Western Ontario

ERNEST T. PASCARELLA
University of Illinois-Chicago

JACK E. ROSSMANN
Macalester College

ERNEST RUDD
University of Essex

CHARLES D. SALLEY
Atlanta, Georgia

JOE L. SAUPE
University of Missouri

JOHN C. SMART
Virginia Polytechnic Institute
& State University

LEWIS C. SOLMON
Higher Education Research Institute

JOAN S. STARK
University of Michigan

PATRICK T. TERENZINI
State University of New York-Albany

WILLIAM TOOMBS
Pennsylvania State University

KENNETH M. WILSON
Educational Testing Service

LEE M. WOLFLE
Virginia Polytechnic Institute
& State University

TELLERS COMMITTEE

This committee is responsible for counting ballots and certifying the results of all elections or referenda held during the year.

JOHN M. KALB *(chair)*
Coordinator of Institutional Research
Budget & Analysis Department
Florida State University
318 Westcott Building
Tallahassee, FL 32306

Telephone: (904) 644-4203

CLINITA A. FORD
Florida A&M University

ARCHIE B. JOHNSTON
Tallahassee Community College

HENRY J. HECTOR
State University System of Florida

AFFILIATED REGIONAL/SPECIAL INTEREST GROUPS

Note: Regional or special interest groups may request affiliation with AIR by following the guidelines in the bylaws (Section 5).

AIR OF THE UPPER MIDWEST (AIRUM)

TIMOTHY J. DELMONT *(liaison)*
Assistant Chief Analyst
Management Planning Division
University of Minnesota
100 Church Street, SE
406 Morrill
Minneapolis, MN 55455

Telephone: (612) 376-7258

CALIFORNIA AIR (CAIR)

ROBERT T. LITTRELL *(liaison)*
Director of Institutional Research
California State University-Long Beach
1250 Bellflower Boulevard
Long Beach, CA 90840

Telephone: (213) 498-4191

COLORADO ASSOCIATION OF PLANNERS AND INSTITUTIONAL RESEARCHERS

EDWARD M. COOPER *(liaison)*
Associate Professor of Marketing
Metropolitan State College
1006 11th Street
Denver, CO 80204

Telephone: (303) 629-3307

ILLINOIS AIR (IAIR)

FRANKLIN L. DUFF *(liaison)*
Associate Director of Planning & Budgeting
University of Illinois
409 E. Chalmers
309 Illini Tower
Champaign, IL 61820

Telephone: (217) 333-6600

LOUISIANA ASSOCIATION OF INSTITUTIONAL RESEARCH OFFICERS (LAIRO)

DONALD J. SIMON *(liaison)*
Director of Information Systems
University of Southwestern Louisiana
USL Box 41770
Lafayette, LA 70504

Telephone: (318) 231-6841

MISSISSIPPI AIR (MAIR)

RICHARD R. GRUETZMACHER *(liaison)*
Research Associate
University of Southern Mississippi
Southern Station Box 5167
Hattiesburg, MS 39401

Telephone: (601) 266-4059

NATIONAL COUNCIL FOR RESEARCH AND PLANNING (NCRP)

EDITH H. CARTER *(liaison)*
Statistician
New River Community College
Box 1127
Dublin, VA 24084

Telephone: (703) 674-4121 Ext. 250

NORTH CAROLINA AIR (NCAIR)

ROBERT M. USSERY *(liaison)*
Director of Institutional Research
East Carolina University
Fifth Street
Greenville, NC 27834
Telephone: (919) 757-6288

NORTH EAST AIR (NEAIR)

ROBERT S. LAY *(liaison)*
Director of Enrollment Management Research
Boston College
Lyons Hall 106
Chestnut Hill, MA 02167

Telephone: (617) 552-3288

PACIFIC NORTHWEST ASSOCIATION FOR INSTITUTIONAL RESEARCH AND PLANNING (PNAIRP)

STEFAN D. BLOOMFIELD *(liaison)*
Associate Director of Institutional Research
Oregon State University
Office of Planning & Institutional Research
Corvallis, OR 97331

Telephone: (503) 754-2001

ROCKY MOUNTAIN AIR (RMAIR)

RICHARD H. CADY *(liaison)*
Director of Institutional Research
University of New Mexico
Scholes Hall 306
Albuquerque, NM 87131

Telephone (505) 277-5115

SOUTHEASTERN ASSOCIATION OF COMMUNITY COLLEGE RESEARCHERS (SACCR)

EDITH H. CARTER *(liaison)*
Statistician
New River Community College
Box 1127
Dublin, VA 24084

Telephone: (703) 674-4121 Ext. 250

SOUTHERN AIR (SAIR)

RICHARD D. HOWARD *(liaison)*
Director of Institutional Research
West Virginia University
Purinton House
Morgantown, WV 26506

Telephone: (304) 293-4906

SOUTHERN UNIVERSITY GROUP OF 25 (SUG-25)

JERRY J. BAUDIN *(liaison)*
Director of Budget & Planning
Louisiana State University
311 T. Boyd Hall
Baton Rouge, LA 70803

Telephone: (504) 388-1231

TEXAS AIR (TAIR)

JOSEPH J. SZUTZ *(liaison)*
Director of Research
Texas College & University System
P.O. Box 12788-Capitol Station
Austin, TX 78711

Telephone: (512) 475-2599

VIRGINIA AIR (VAIR)

W. KEVIN HUNT *(liaison)*
Director of Research, Planning & Data Services
Tidewater Community College
State Route 135
Portsmouth, VA 23703

Telephone: (804) 484-2121 Ext. 345

New 1983-84 Members—listed alphabetically

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ABBOTT, MANTE E. (MBS)

DIRECTOR, GRANTS SERVICES
CANISIUS COLLEGE
2001 MAIN STREET
BUFFALO NY 14208
PH- (716) 883-7000 EXT 709

ABU-ZINADA, A. H. (DR)

SUPERVSR, DEPT STUDIES+ORGANZTN
KING SAUD UNIVERSITY
PO BOX 2454
RIYADH SAUDI ARABIA

ADAMS, DORCAS M. (MS)

DATA MANAGEMENT + RSCH ANALYST
MIDLANDS TECHNICAL COLLEGE
PO BOX 2408
COLUMBIA SC 29202
PH- (803) 738-1400 EXT 3238

AGUERO, ROBERT (DR)

ASSISTANT TO THE PRESIDENT
SOUTHWEST TEXAS JUNIOR COLLEGE
GARNER FIELD ROAD
UVALDE TX 78801
PH- (512) 278-4401 EXT 296

ALBRO, PAUL

COORD, INSTITUTIONAL RESEARCH
CASTLETON STATE COLLEGE

CASTLETON VT 05735
PH- (802) 468-5611 EXT 240

AMER, NABIL AHMAD (DR)

ASSOC PROF, COMPARATIVE EDUC
AIN-SHAMS UNIVERSITY
- 3, MANALEEK STREET, APT 53
ROXY-HELIOPOLIS, CAIRO EGYPT
PH- 606257

ANNAS, TOMMY

ASST VICE CHANC FOR INSTL RSCH
SUNY CENTRAL ADMINISTRATION
STATE UNIVERSITY PLAZA
ALBANY NY 12246
PH- (518) 473-1830

AQUINO, FELIX J.

ASSISTANT TO THE PRESIDENT
ATLANTIC COMMUNITY COLLEGE

MAYS LANDING NJ 08330
PH- (609) 625-1111 EXT 415

ARNOLD, DREW J. (DR)

ASST PROF, PSYCH + BEHAVPL SCI
KEUKA COLLEGE

KEUKA PARK NY 14478
PH- (615) 536-4411 EXT 309

ASKEGAARD, LEWIS D. (DR)

DIR, INSTITUTIONAL RSCH + PLNG
MARY BALDWIN COLLEGE

STAUNTON VA 24401
PH- (703) 885-0811 EXT 228

AUSTIN, ANN E. (MS)

GRADUATE STUDENT
UNIVERSITY OF MICHIGAN
1225 SCHOOL OF EDUCATION
ANN ARBOR MI 48109
PH- (313) 763-9930

BAJTELSMIT, JOHN W. (DR)

ASSOCIATE PROFESSOR, PSYCHOLOGY
AMERICAN COLLEGE
270 BRYN MAWR AVENUE
BRYN MAWR PA 19010
PH- (215) 896-4640

BARDSLEY, W. NEIL (DR)

INSTNL RESEARCH/ACAD AFFAIRS
WESTERN AUSTRALIAN INST TECH
KENT STREET
BENTLEY, WA 6102 AUSTRALIA
PH- (09) 350-7634

BARON, PATRICIA B. (MS)

ASSISTANT TO ASSOC ACADEMIC VP
NORTHERN ARIZONA UNIVERSITY
BOX 4085
FLAGSTAFF AZ 86011
PH- (602) 523-4348

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BAUMAN, CURTIS D.

REGISTRAR/DIR, INSTNL RESEARCH
CEDAR CREST COLLEGE

ALLENTOWN PA 18104
PH- (215) 437-4471 EXT 346

BECK, C. L.

INSTITUTIONAL RESEARCHER
LINDSEY WILSON COLLEGE
210 LINDSEY WILSON STREET
COLUMBIA KY 42728
PH- (502) 384-2126 EXT 213

BEDSOLE, DAN (DR)

DEAN, EDUCATIONAL RESOURCES
AUSTIN COLLEGE
900 NORTH GRAND
SHERMAN TX 75090
PH- (214) 892-9101 EXT 393

BELL, WILLIAM

DIR, PLNG + INSTITUTIONAL RSCH
CATHOLIC UNIVERSITY OF AMERICA
300 MCMAHON HALL
WASHINGTON DC 20064
PH- (202) 635-5212

BELLUCCI, J. F. (DR)

DIR, INSTITUTIONAL RESEARCH
WILKES COLLEGE

WILKES-BARRE PA 18766
PH- (717) 824-4651 EXT 432

BENITEZ-DELGADO, SARA (MS)

DIR, PLNG + DEVELOPMENT OFFICE
HUMACAO UNIVERSITY COLLEGE
CUH STATION
HUMACAO PR 00661
PH- (809) 852-2525 EXT 203

BISSONNETTE, KATHLEEN K. (DR)

ASSOC DIR, INSTITUTIONAL RSCH
WEST VIRGINIA UNIVERSITY
209 PURINTON HOUSE
MORGANTOWN WV 26506
PH- (304) 293-4906

BRACKETT, GAIL B. (MRS)

BUDGET OFFICE
STHN ILLINOIS UNIV-CARBONDALE
15 ANTHONY HALL
CARBONDALE IL 62901

BREEN, EDWARD F. (DR)

DIRECTOR OF RESEARCH
MACOMB COMMUNITY COLLEGE
44575 GARFIELD ROAD
MOUNT CLEMENS MI 48044
PH- (313) 286-2092

BUCHAN, DOROTHY J. (DR)

DEAN OF LIBERAL ARTS
ALPENA COMMUNITY COLLEGE
666 JOHNSON STREET
ALPENA MI 49707
PH- (517) 356-9021 EXT 253

BUCY, DAVID A.

DIR, PLNG + INSTITUTIONAL RSCH
OREGON STATE UNIVERSITY

CORVALLIS OR 97331
PH- (503) 754-4133

BUSCH, CHARLES RANDALL

INSTNL PLANNING + DEV OFFICER
LEE COLLEGE
PO BOX 818
BAYTOWN TX 77520
PH- (713) 427-5611 EXT 208

CALDWELL, ANNETTE H. (MS)

SENIOR ANALYST, BUDGET+PLANNING
SYRACUSE UNIVERSITY
SKYTOP OFFICES
SYRACUSE NY 13210
PH- (315) 423-4214

CAMERON, DAVID M. (DR)

EXEC DIRECTOR, POLICY+PLANNING
DALHOUSIE UNIVERSITY
OFFICE OF THE PRESIDENT
HALIFAX, NS, CANADA B3H 4H6
PH- (902) 424-2511

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CHAN, SUSY S. (DR)

DIR, INSTITUTIONAL PLNG + RSCH
DEPAUL UNIVERSITY
25 EAST JACKSON BLVD, ROOM 1361
CHICAGO IL 60613
PH- (312) 321-7694

CHAVEAS, RICHARD W.

COORD, INSTITUTIONAL RESEARCH
READING AREA COMMUNITY COLLEGE
PO BOX 1706
READING PA 19603
PH- (215) 372-4721 EXT 326

CHEN, MAY K. C. (DR)

DIR, INSTITUTIONAL RESEARCH
BETHANY COLLEGE

LINDSBORG KS 67456
PH- (913) 227-3311 EXT 202

• CLARK, JOCELYN C. (MS)

GRADUATE STUDENT
MANSFIELD UNIVERSITY

MANSFIELD PA 16933
PH- (717) 662-4401

CREIGHTON, SUSAN DABNEY (MS)

EDUCATIONAL RESEARCHER
MIDLANDS TECHNICAL COLLEGE
PO BOX 2408
COLUMBIA SC 29202
PH- (803) 738-1400 EXT 3240

CRONIN, SISTER MAUREEN P.

ASSOC PROVOST/DIR, INSTNL RSCH
UNIVERSITY OF SAN DIEGO
ALCALA PARK
SAN DIEGO CA 92110
PH- (619) 293-4553

• CROSBY, JAMES R.

GRADUATE STUDENT
MICHIGAN STATE UNIVERSITY
- 9231 SAN BENITO WAY
DALLAS TX 75219
PH- (214) 328-7960

CURRY, DENIS J.

DEPUTY COORDINATOR FOR FINANCE
WASH COUNCIL FOR POSTSEC EDUC
908 EAST FIFTH AVENUE, EW-11
OLYMPIA WA 98504
PH- (206) 753-1765

DANNEYER, JOAN

ADMINISTRATIVE ASSISTANT
ROCHESTER INST OF TECH
ONE LOMB MEMORIAL DRIVE
ROCHESTER NY 14623
PH- (716) 475-2258

DAVIS, HARRY P.

SUPVR, INSTITUTIONAL RESEARCH
UNIV OF TENNESSEE
111 STUDENT SERVICES BUILDING
KNOXVILLE TN 37996
PH- (615) 974-6611

ESSER, PATRICIA R. (MS)

ACTG COORD+RSCH ANLYST-IR+RPTG
LAMAR UNIVERSITY
PO BOX 10020
BEAUMONT TX 77706
PH- (409) 838-8095

FIORINO, ELEANOR (MRS)

SENIOR PROGRAM COORDINATOR
HUMBER COLL OF APPLD ARTS+TECH
HUMBER COLLEGE BOULEVARD
REXDALE, ON, CANADA M9W 5L7
PH- (416) 675-3111 EXT 566

FITZGERALD, PETER H. (DR)

VICE CHANCELLOR OF ADMINISTRTN
UNIV OF HOUSTON-UNIV PARK
4800 CALHOUN BOULEVARD
HOUSTON TX 77004
PH- (713) 749-7529

FLOE, DENISE J. (MS)

DIRECTOR OF RESEARCH
MINNESOTA PRIVATE COL COUNCIL
500 CEDAR ST, 910 CAPITOL SQ BG
SAINT PAUL MN 55101
PH- (612) 228-9061

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FOE, JOHN L.

DIR, INSTITUTIONAL RESEARCH
WESTERN KENTUCKY UNIVERSITY
311 WETHERBY ADMIN BUILDING
BOWLING GREEN KY 42101
PH- (502) 745-3259 EXT 33

FRECCERO, YVONNE (MS)

DIR, INSTNL RESEARCH/REGISTRAR
SMITH COLLEGE

NORTHAMPTON MA 01063
PH- (413) 584-2700 EXT 2246

FREEDMAN, MINDY (DR)

ASST DEAN, STUDENT AFFAIRS
BENTLEY COLLEGE
BEAVER AND FOREST STREETS
WALTHAM MA 02254
PH- (617) 891-2161

FREEMAN, JOHN F. (DR)

ASST TO VICE PRES FOR FINANCE
UNIVERSITY OF WYOMING
OLD MAIN 404, FINANCE OFFICE
LARAMIE WY 82071

FRIDRICH, ARTHUR J.

INSTITUTIONAL RESEARCH
CLEVELAND STATE UNIVERSITY
901 FENN TOWER
CLEVELAND OH 44115
PH- (216) 687-4700

GABOVITCH, RHONDA M. (MS)

SYSTEMS ANALYST
BROWN UNIVERSITY
BOX 1912, INSTITUTIONAL RSCH
PROVIDENCE RI 02912
PH- (401) 863-2386

GALLO, JUDY A. (MS)

SECRETARY, INSTITUTIONAL RSCH
INDIANA UNIV OF PENNSYLVANIA
SUTTON HALL G-1
INDIANA PA 15705
PH- (412) 357-3001

GAYLORD, THOMAS A. (DR)

STATEWIDE BUDGET OFFICE
UNIVERSITY OF ALASKA SYSTEM
UNIV OF ALASKA, GRUENING 8TH FL
FAIRBANKS AK 99701
PH- (907) 474-7593

GEIGER, JOSEPH J.

ASST TO VICE PRES FOR ADMIN
UNIVERSITY OF COLORADO SYSTEM
CAMPUS BOX 8-4
BOULDER CO 80309
PH- (303) 492-6208

GOLDBERG, FRANK (DR)

ASST DEAN FOR INSTNL STUDIES
NORTHWESTERN UNIVERSITY
GRADUATE SCHOOL
EVANSTON IL 60201
PH- (312) 492-7264

GOOD, RICHARD M. (DR)

ASSOCIATE DIRECTOR
UNIV OF MARYLAND-COLLEGE PARK
2110 TURNER LABORATORY
COLLEGE PARK MD 20742
PH- (301) 454-5640

GREER, LINDA R. (DR)

DIR, INSTITUTIONAL RESEARCH
CLAYTON JUNIOR COLLEGE
PO BOX 285
MORROW GA 30260
PH- (404) 961-3488

HALL, ELEANOR ROSS (DR)

RSCH SPEC, MINORTS/DISADVGD CTR
UNIV OF WISCONSIN-MILWAUKEE
PO BOX 413
MILWAUKEE WI 53201
PH- (414) 963-5445

* HALWACHI, JALIL HASSAN (MR)

GRADUATE STUDENT
UNIVERSITY OF STIRLING
9 GRANGE LOAN GARDENS
EDINBURGH, EH9 2EB SCOTLAND
PH- (031) 6672703

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HAMILTON, SHARON P. (DR)

ASSOC DIR, INSTITUTIONAL RSCH
SAN FRANCISCO STATE UNIVERSITY
1600 HOLLOWAY AVENUE
SAN FRANCISCO CA 94132

HARRIS, VIRGINIA M. (DR)

DIRECTOR OF GRANTS
SACRED HEART UNIVERSITY
PO BOX 6460
BRIDGEPORT CT 06606
PH- (203) 371-7959

HASKA, CHRISTINE M. (DR)

RESEARCH ANALYST
TULANE UNIVERSITY
327 GIBSON HALL
NEW ORLEANS LA 70118
PH- (504) 865-5260

HAYES, ANNIE R. (DR)

DIRECTOR, PLANNING + RESEARCH
UNIV OF THE DIST OF COLUMBIA
- 7535 DOLCE DRIVE
ANNANDALE VA 22003
PH- (202) 282-7564

HEALEY, ROBERT J.

CALIF STATE POLYTECH UN-POMONA
3801 WEST TEMPLE AVENUE
POMONA CA 91768
PH- (714) 598-4592 EXT 4924

HENNETER, JOHN T. (DR)

DIR, INSTITUTIONAL RESEARCH
UNIV OF TENNESSEE
440 COMMUNICATIONS BUILDING
KNOXVILLE TN 37996
PH- (615) 974-4373

HESEMANN, JOHN P. (DR)

INFORMATION + RESEARCH OFFICER
EDISON STATE COMMUNITY COLLEGE
1973 EDISON DRIVE
PIQUA OH 45369
PH- (513) 778-8600 EXT 206

HEVERLY, MARY ANN (DR)

RESEARCH ASSOCIATE
DELAWARE COUNTY COMM COLLEGE

MEDIA PA 19063
PH- (215) 353-5400 EXT 406

HICKSON, JACK D.

SYSTEMS ANALYST
GEORGE MASON UNIVERSITY
4400 UNIVERSITY DRIVE
FAIRFAX VA 22030
PH- (703) 323-2132

HOWELL, JAMES D. (DR)

DIR, INSTITUTIONAL RESEARCH
PALM BEACH JUNIOR COLLEGE
4200 CONGRESS AVENUE
LAKE WORTH FL 33461
PH- (305) 439-8094

HUDGINS, FRANCINE (MS)

RSCH ASST/ASST DIR, AFFRM ACTN
NORFOLK STATE UNIVERSITY
2401 CORPREW AVENUE
NORFOLK VA 23504
PH- (804) 623-8679

HULME, DANA (MS)

DIR, INSTITUTIONAL RESEARCH
HOOD COLLEGE

FREDERICK MD 21701
PH- (301) 663-3131 EXT 394

IKENBERRY, R. D. (DR)

INT ASSOC DIR, INSTNL RESEARCH
EAST TENNESSEE STATE UNIV
PO BOX 23, 980A
JOHNSON CITY TN 37614
PH- (615) 929-4236

JACKSON, BETSY E. (MS)

RESEARCH ASSOCIATE
MARY HOLMES COLLEGE
PO DRAWER 1257
WEST POINT MS 39773
PH- (601) 494-6820 EXT 61

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JOHNSON, ELIZABETH M. (MRS)

COMMISSIONER
OR TCHR STNDRDS+PRACTICES CMSN
PO BOX 336
REDMOND OR 97756
PH- (503) 548-3186

JOHNSON, RICHARD A. (PROF)

ASSOC VICE-PRES(PLNG+ANALYSIS)
UNIVERSITY OF MANITOBA
209 ADMINISTRATION BUILDING
WINNIPEG, MB, CANADA R3T 2N2
PH- (204) 474-8308

KARCLEWSKI, TERESA

RESEARCH ECONOMIST
GEO. BROWN COL,APPLD ARTS+TECH
PO BOX 1015, STATION B
TORONTO, ON, CANADA M5T 2T9
PH- (416) 967-1212 EXT 2341

KAYNOR, ROBERT K.

ASSOCIATE PLANNING OFFICER
MASSACHUSETTS INST OF TECH
77 MASSACHUSETTS AVE,RM 12-156
CAMBRIDGE MA 02139
PH- (617) 253-5831

KERR, KEITH P.

MGMT INFO SYSTEMS SPECIALIST
WEBER STATE COLLEGE
PLANNING + INFO SYSTEMS, 1006
OGDEN UT 84408
PH- (801) 626-6114

KERSTETTER, PHILIP P.

ASST TO VICE PRES FOR RESEARCH
GALLAUDET COLLEGE
800 FLORIDA AVENUE, NE
WASHINGTON DC 20002
PH- (202) 651-5030

KLINGBEIL, SIGRID

SCIENTIFIC MEMBER
BAVARIAN STATE INST RSCH HI ED
ARABELLASTRASSE 1
D-8000 MUNCHEN 81 WEST GERMANY
PH- (089) 9214-2195

KOMINSKI, CAROL ANN (DR)

DIR, INSTITUTIONAL RESEARCH
ALAMO COMMUNITY COLLEGE DIST
1300 SAN PEDRO AVENUE
SAN ANTONIO TX 78284
PH- (512) 733-2139

LANGLOIS, ELEANOR (MS)

PRINCIPAL ADMIN ANALYST
UNIV OF CALIF-BERKELEY
47 CAMPBELL HALL, INSTNL RSCH
BERKELEY CA 94720
PH- (415) 642-6523

LEE, MARTHA

SOUTHWEST TEXAS STATE UNIV
PLANNING + ANALYSIS
SAN MARCOS TX 78666
PH- (512) 245-2386

LEFEBVRE, ALBERT C.

DIRECTOR, ACADEMIC SERVICES
UNIV OF MASSACHUSETTS-BOSTON
COLLEGE OF MANAGEMENT
BOSTON MA 02125
PH- (617) 929-8100

LENNOX, CAROL

DIR, COMPUTING + INSTNL RSCH
MILLS COLLEGE
5000 MACARTHUR BOULEVARD
OAKLAND CA 94613
PH- (415) 430-2237

* LOVE, A. RICHARDSON

DIR, INSTITUTIONAL RESEARCH
DAVIDSON COLLEGE

DAVIDSON NC 28036
PH- (704) 892-2000

* LOWERY, SANDRA K.

GRADUATE STUDENT
UNIVERSITY OF MICHIGAN
- 17356 BEECHWOOD
BIRMINGHAM MI 48009
PH- (313) 646-5682

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LUEDDEKE, GEORGE R.

HEAD, INSTRUCTNL RESOURCE CTR
MOHAWK COLLEGE
135 FENNELL AVENUE WEST
HAMILTON, ON, CANADA L8N 3T2
PH- (416) 389-4461 EXT 580

LYNN, SANDRA J. (MS)

ASSISTANT PROFESSOR
INDIANA UNIV OF PENNSYLVANIA
INSTITUTIONAL RESEARCH OFFICE
INDIANA PA 15705
PH- (412) 357-3001

MAESTAS, SIGFREDO (DR)

ASSOC EXEC SECRETARY-ACADEMICS
BOARD OF EDUCATIONAL FINANCE
1068 CERRILLOS ROAD
SANTA FE NM 87501
PH- (505) 827-8300

MASTERS, GUY M.

ASST TO PRES-INSTNL RSCH +PLNG
IOWA WESLEYAN COLLEGE
NORTH MAIN STREET
MT PLEASANT IA 52641
PH- (319) 385-8021 EXT 150

MATTHEWS, VIRGIL M.

VICE PRES FOR ACADEMIC AFFAIRS
LON MORRIS COLLEGE

JACKSONVILLE TX 75766
PH- (214) 586-2471 EXT 29

MATTICE, NANCY J. (MS)

RESEARCH + PLANNING ASSOCIATE
UNIVERSITY OF HARTFORD
BLOOMFIELD AVENUE
WEST HARTFORD CT 06117
PH- (203) 243-4409 EXT 4408

MCCARTY, RICHARD C.

DIR, INSTITUTIONAL RESEARCH
LOCK HAVEN STATE COLLEGE
SMITH 6-6
LOCK HAVEN PA 17745
PH- (717) 893-2452

MCCAULEY, JOAN E. (MS)

DIR, PLANNING +POLICY ANALYSIS
UNIVERSITY OF KENTUCKY
206 ADMINISTRATION BUILDING
LEXINGTON KY 40506
PH- (606) 257-6195

MIDDAUGH, MICHAEL F. (DR)

ASST TO PRES-INSTNL RSCH +PLNG
SUNY COLLEGE OF TECHNOLOGY
811 COURT STREET
UTICA NY 13502
PH- (315) 792-3553

MINGLE, JAMES R. (DR)

RESEARCH ASSOCIATE
SOUTHERN REGIONAL EDUC BOARD
1340 SPRING STREET, NW
ATLANTA GA 30309
PH- (404) 875-9211

MINOR, JAMES A. (DR)

ASSISTANT PROFESSOR
UNIVERSITY OF SOUTH DAKOTA
- 114 HIGH STREET
VERMILLION SD 57069
PH- (605) 677-5811

MORE, DEBORAH SCOTT (MS)

DIR, MANAGEMENT INFORMATION SYS
DAEMEN COLLEGE
4380 MAIN STREET
AMHERST NY 14226
PH- (716) 839-3600 EXT 212

MORMAN, SISTER MARILYN D.

EXECUTIVE ASSISTANT TO PRES
BARRY UNIVERSITY
11300 NE SECOND AVENUE
MIAMI FL 33161
PH- (305) 758-3392 EXT 314

• NEAL, MAUREEN T.

GRADUATE STUDENT
UNIVERSITY OF MICHIGAN
- 191 OTTAWA
PONTIAC MI 48053

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NORMAN, ANNE S. (MS)

ASSISTANT TO THE PRESIDENT
LAWRENCE UNIVERSITY
PO BOX 599
APPLETON WI 54912
PH- (414) 735-6521

NUNEZ, NYDIA (PS)

DIRECTOR, OPERATIONS RESEARCH
BORICUA COLLEGE
- 186 NORTH SIXTH STREET
BROOKLYN NY 11206
PH- (212) 782-2200 EXT 261

O'HARE, DANIEL (DR)

DIRECTOR
NATIONAL INST FOR HIGHER EDUC
GLASNEVIN
DUBLIN 9 IRELAND
PH- (01) 370077

O'RIELLY, KATHLEEN A. (MS)

- 15 ROBBINS STREET
WALTHAM MA 02154
PH- (617) 894-0545

* ORCZYK, CYNTHIA L. (PS)

GRADUATE STUDENT
UNIVERSITY OF MICHIGAN
CENTER FOR STUDY OF HIGHER ED
ANN ARBOR MI 48109
PH- (313) 764-9472

ORDMANER, MARK J.

DEAN-PLANNING, RSCH+EVALUATION
HUDSON COUNTY COMMUNITY COL
900 BERGEN AVENUE
JERSEY CITY NJ 07306
PH- (201) 656-2020 EXT 104

PACE, LLOYD A.

SYSTEMS ANALYST
CALIF STATE UNIV-NORTHRIDGE
- 18553 CITRONIA STREET, 25
NORTHRIDGE CA 91325
PH- (213) 885-3241

PACKWOOD, GENE (DR)

ACTING DIR, RESEARCH + DEVLPMT
DELTA COLLEGE

UNIVERSITY CENTER MI 48710
PH- (517) 686-9216

PASZEL, JOHN JOSEPH

DEPT HEAD, INSTITUTIONAL DEV
STATE TECH INSTITUTE-MEMPHIS
5983 MACON COVE
MEMPHIS TN 38134
PH- (901) 377-4147

PELTA, HAROLD MILS

RESEARCH ASSISTANT
GLASSBORO STATE COLLEGE
ROLE ANNEX
GLASSBORO NJ 08028
PH- (609) 445-7021

PETERSON, RONALD R.

DIR, PLNG + INSTITUTIONAL RSCH
LOUISIANA STATE UNIV-MED CTR
1440 CANAL STREET, SUITE 1521
NEW ORLEANS LA 70112
PH- (504) 568-4551

PINKHAM, KAREN LEA (DR)

INSTITUTIONAL RESEARCH COORD
UNIVERSITY OF NEVADA SYSTEM
405 MARSH AVENUE
RENO NV 89509
PH- (702) 784-4022

PRIEDE, JANIS (MR)

RESEARCH ASSOCIATE
NORTHERN ILLINOIS UNIVERSITY
OFFICE OF BUDGET + PLANNING
DEKALB IL 60115
PH- (815) 753-1506

PRITCHARD, BETTY

DIRECTOR, COMMUNITY RESEARCH
MACOMB COMMUNITY COLLEGE
44575 GARFIELD ROAD
MOUNT CLEMENS MI 48044

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GUAZI, SAEED

PROJECT DIRECTOR
ONTARIO INST FOR STUDIES IN HE
252 BLOOR STREET WEST
TORONTO, ON, CANADA M5S 1V6
PH- (416) 491-4246 EXT 333

RAINEY, GLORIA R. (DR)

DIRECTOR, PLANNING + RESEARCH
WILBERFORCE UNIVERSITY

WILBERFORCE OH 45384
PH- (513) 376-2911 EXT 249

RICE-ARNOLD, ELIZABETH (MS)

INSTITUTIONAL RESEARCHER
MAHARISHI INTERNATIONAL UNIV

FAIRFIELD IA 52556
PH- (515) 472-5031 EXT 135

RINCON, EDWARD Y. (DR)

INSTITUTIONAL RESEARCH ANALYST
SOUTHERN METHODIST UNIVERSITY
HILLCREST AT MOCKINGBIRD
DALLAS TX 75275
PH- (214) 692-3601

ROBERTSON, DAVID J.

PLANNING OFFICER
ALGONQUIN COLLEGE
1385 WOODROFFE AVENUE
OTTAWA, ON, CANADA K2G 1V8
PH- (613) 725-7333,7321

ROSE, JEAN H. (MS)

ASST DIR, ADMINISTRATIVE STDS
UNIV OF ILLINOIS-CHICAGO
PO BOX 6998/715 S WOOD,201 ASB
CHICAGO IL 60680
PH- (312) 996-8050

ROLF, CAROL J. (MS)

DIRECTOR, ACADEMIC BUDGETS
UNIVERSITY OF SOUTH FLORIDA
4202 EAST FOWLER AVE, ADMN 226
TAMPA FL 33620
PH- (813) 974-2134

RUBINO, DAVID A. (DR)

DIR, PLNG, RDGTNG +INSTNL RSCH
GANNON UNIVERSITY
UNIVERSITY SQUARE
ERIE PA 16541
PH- (814) 871-7000 EXT 464

RUBINO, MICHAEL H. (DR)

DIR, INSTITUTIONAL RESEARCH
SUFFOLK UNIVERSITY
BEACON HILL
BOSTON MA 02114
PH- (617) 723-4700 EXT 628

RUFF, DAN G.

DIRECTOR, PLANNING + RESEARCH
MIDLANDS TECHNICAL COLLEGE
PO BOX 2408
COLUMBIA SC 29202
PH- (803) 738-1400 EXT 3237

SALLEY, CHARLES DUDLEY (DR)

- PO BOX 54739
ATLANTA GA 30308
PH- (404) 233-8324

SANCHEZ, CLARENCE (DR)

DIR, INSTITUTIONAL RESEARCH
NEW MEXICO HIGHLANDS UNIV

LAS VEGAS NM 87701
PH- (505) 425-7511 EXT 277

SCHMIDT, STEVEN P.

MANAGEMENT INFO SPECIALIST
IDAHO STATE BOARD OF EDUCATION
650 WEST STATE STREET
BOISE ID 83720
PH- (208) 334-2270

SEWELL, TOM (DR)

CHANCELLOR
SAN JACINTO COLLEGE DISTRICT
4624 FAIRMONT PARKWAY, STE 201
PASADENA TX 77504
PH- (713) 476-1812

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SEYBERT, JEFF (DR)

RESEARCH/EVALUATION SPECIALIST
JOHNSON COUNTY COMMUNITY COLL

OVERLAND PARK KS 66210
PH- (913) 888-8500 EXT 442

SHARMA, RAJ (MR)

PLANNING OFFICER
ROYAL MELBOURNE INST OF TECH
5 KELLETT GROVE, KEW
MELBOURNE, VIC 3101 AUSTRALIA
PH- (03) 341-2061

SKAGGS, C. THOMAS (DR)

DIRECTOR, TESTING + RESEARCH
UNIV OF MAINE-ORONO
201 FERNALD HALL
ORONO ME 04469
PH- (207) 581-1410

SKORJAN, BERNADETTE L. (DR)

COORD, PLANNING+POLICY SUPPORT
ROCHESTER INST OF TECH (NTID)
PO BOX 9887
ROCHESTER NY 14623

SMITH, DARYL G. (DR)

VICE PRES FOR PLANNING + RSCH
SCRIPPS COLLEGE
BALCH HALL
CLAREMONT CA 91711
PH- (714) 621-8224

SMITH, DOROTHY K. (MS)

INTERM DIR,BDGT,PERSONNEL+ANLYS
UNIVERSITY OF MICHIGAN-FLINT

FLINT MI 48502
PH- (313) 762-3327

SMITH, HEATHER C. (MS)

DIR, INSTNL RECORDS + RESEARCH
CENTRL NEW ENGLAND COL OF TECH
768 MAIN STREET
WORCESTER MA 01610
PH- (617) 755-4314 EXT 289

STENTON, PAUL

RESEARCH OFFICER
ONTARIO COUNCIL ON UNIV AFFRS
700 BAY STREET, 7TH FLOOR
TORONTO, ON, CANADA M5G 1Z6
PH- (416) 965-5233

STERN, LARRY N. (DR)

DIR, INSTITUTIONAL RESEARCH
MARS HILL COLLEGE
PO BOX 279
MARS HILL NC 28754
PH- (704) 689-1110

STURTZ, ALAN J. (DR)

DIR, INSTNL RSCH, PLNG + DEV
SOUTH CENTRAL COMMUNITY COL
60 SARGENT DRIVE
NEW HAVEN CT 06513
PH- (203) 789-7030

TARPLEY, DOUGLAS B. (DR)

DIRECTOR, RESEARCH + PLANNING
DYERSBURG STATE COMM COLLEGE
LAKE ROAD
DYERSBURG TN 38024
PH- (901) 285-6910 EXT 210

TAYLOR, DESMOND D.

HEAD, PLANNING + RESEARCH
VICTORIA COLLEGE
662 BLACKBURN ROAD
CLAYTON, VIC 3168 AUSTRALIA
PH- (03) 542-7236

TESAR, CATHERINE T. (MRS)

SENIOR STAFF ASSOCIATE
UNIV OF WISCONSIN SYSTEM
1220 LINDEN DR, 1946 VAN HISE
MADISON WI 53711
PH- (608) 262-2028

TESCH, RENATA (DR)

COORD, SYSTEMS ANALYSIS + PLNG
FIELDING INSTITUTE
226 EAST DE LA GUERRA
SANTA BARBARA CA 93101
PH- (805) 963-6501

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TOMPKINS, LOREN O.

EMPORIA STATE UNIVERSITY
1200 COMMERCIAL, 328H ED/PSYCH
EMPORIA KS 66801
PH- (316) 343-1200

VAN SLYKE, ANSON

INSTITUTIONAL RSCH ASSISTANT
DALLAS BAPTIST COLLEGE
7777 W KIEST BLVD, STRICKLAND
DALLAS TX 75211
PH- (214) 331-8311 EXT 172

WATTAMANIUK, WALTER J. (DR)

ACTING DIRECTOR
SIMON FRASER UNIVERSITY
OFFICE OF ANALYTICAL STUDIES
COQUITLAM, BC, CANADA V3A 1S6
PH- (604) 291-3600

WATTS, DENISE C. (MS)

DIRECTOR, PLANNING & ANALYSIS
SOUTHWEST TEXAS STATE UNIV

SAN MARCOS TX 78666
PH- (512) 245-2386

WEBB, MELVIN WALTER, II

DIR, ASSESSMENT CTR +IR OFFICE
ST LOUIS COMM COL-FLORISSANT V
3400 PERSHALL ROAD
SAINT LOUIS MO 63135
PH- (314) 595-4264

WEBER, JOHN J., JR.

COORD, RSCH & ANALYTICAL STDS
METROPOLITAN TECH COMM COLLEGE
PO BOX 3777
OMAHA NE 68103
PH- (402) 449-8377

WEBSTER, OTIS S. (DR)

COORD, INSTITUTIONAL RESEARCH
JARVIS CHRISTIAN COLLEGE
HIGHWAY 80
HAWKINS TX 75765
PH- (214) 769-2174 EXT 141

WEEKS, ANN A.

DIR, INSTITUTIONAL RESEARCH
DUTCHESS COMMUNITY COLLEGE
- INNSBRUCK BOULEVARD
HOPEWELL JUNCTION NY 12533

WEEKS, SUSAN F. (MS)

COORDINATOR, PLANNING STUDIES
OREGON STATE SYS OF HIGHER ED
PO BOX 3175
EUGENE OR 97403
PH- (503) 686-4156

WEINER, GEORGE D. (DR)

ASSISTANT PROFESSOR
CLEVELAND STATE UNIVERSITY
COLLEGE OF BUSINESS ADMIN
CLEVELAND OH 44115
PH- (216) 687-4735

WEISS, DAVID A.

PROGRAM ADMINISTRATOR
EDUCATIONAL TESTING SERVICE
ROSEDALE ROAD
PRINCETON NJ 08540
PH- (609) 734-1755

WELSH, WILLIAM A. (DR)

RESEARCH ASSOCIATE
ROCHESTER INST OF TECH (NTID)
ONE LOMB MEMORIAL DRIVE
ROCHESTER NY 14623
PH- (716) 475-6479

WHITELY, JOHN M.

DIR, INSTITUTIONAL RESEARCH
ROCHESTER INST OF TECH
ONE LOMB MEMORIAL DRIVE
ROCHESTER NY 14623
PH- (716) 475-6079

WILLIAMS, FRANK C., JR.

ASSISTANT DIRECTOR
THE COLLEGE BOARD
470 TOTTEN POND ROAD
WALTHAM MA 02154
PH- (617) 890-9150

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WILLIAMS, LARRY R. (DR)

COORD, INSTITUTIONAL RESEARCH
EAST TEXAS STATE UNIVERSITY
EAST TEXAS STATION
COMMERCE TX 75429
PH- (214) 886-5611

WILLIFORD, A. MICHAEL

ADMISSIONS COUNSLR,MARKET RSCH
MANCHESTER COLLEGE
BOX 124
NORTH MANCHESTER IN 46962
PH- (219) 982-2141 EXT 505

WINDHAM, PATRICIA W. (MS)

RESEARCH ASSOCIATE
FLORIDA DEPT OF EDUCATION
KNOTT BUILDING
TALLAHASSEE FL 32301
PH- (904) 488-8537

Frequently Called Numbers

Past Presidents

1965–66	John E. Stecklein
1966–67	James R. Montgomery
1967–68	L. E. Hull
1968–69	Joe L. Saupe
1969–70	Thomas R. Mason
1970–71	Sidney Suslow*
1971–72	Richard R. Perry
1972–73	Joseph T. Sutton
1973–74	Donald C. Lelong
1974–75	Lois E. Torrence
1975–76	Bernard S. Sheehan
1976–77	James W. Firnberg
1977–78	Warren W. Gulko
1978–79	Robert A. Wallhaus
1979–80	F. Craig Johnson
1980–81	George Beatty, Jr.
1981–82	William L. Tetlow
1982–83	William F. Lasher

Past Forum Chairs

(Note: During the period 1965–79, the Forum chair succeeded to the presidency.)

1980	Robert H. Fenske
1981	John S. Chase
1982	Daniel R. Coleman
1983	Mantha V. Mehallis

Recipients of the Sidney Suslow Outstanding Forum Paper Award

1977 Forum	Charles Dudley Salley
1978 Forum	James E. Prather
	Glynton Smith
	Janet E. Kodras
1979 Forum	Alan C. Bare
1980 Forum	Gerald W. McLaughlin
	James R. Montgomery
	Archer R. Gravely
	Beatrice T. Mahan

Distinguished Members**

A. J. Brumbaugh (1966)*
Mary E. Corcoran (1981)
Paul L. Dressel (1978)
Cameron L. Fincher (1983)
Charles E. Howell (1970)*
John Dale Russell (1966)*
John E. Stecklein (1977)
Elmer West (1974)

Recipients of the Outstanding Service Award**

Charles I. Brown (1979)
Robert H. Fenske (1982)
Cameron L. Fincher (1980)
Gustav J. Froehlich (1979)
F. Craig Johnson (1982)
James R. Montgomery (1980)
Marvin W. Peterson (1982)
Joe L. Saupe (1981)
Bernard S. Sheehan (1981)
Lois E. Torrence (1983)
Risdon J. Westen (1980)

Emeritus Members**

Harlan D. Bareither (1982)
Rino Bianchi (1980)
Boris Blai, Jr. (1979)
Ralph W. Brown, Jr. (1983)
Evelyn Clewell (1977)
Kenneth R. Doane (1981)
Gustav J. Froehlich (1979)
Donald P. Gavin (1978)
Stephen J. Groszos (1982)
Morris S. Hendrickson (1978)
Eliot C. Higbee (1980)
Irvin Hochman (1981)
Paul E. Ingwell (1981)
Nydia M. King (1981)
Suzanne W. Larsen (1982)
Russell C. Peeples (1981)
John E. Phay (1979)
A. A. Sterns (1977)
Sid R. Wallace (1980)
Risdon J. Westen (1980)
Robert L. Woodard (1979)

*Deceased
**The number in parentheses is the year in which the award was made.